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GRIZZLY BEAR MANAGEMENT IN THE YELLOWSTONE ECOSYSTEM

HEARING

BEFORE THE

SUBCOMMITTEE ON
ENVIRONMENTAL POLLUTION

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

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GRIZZLY BEAR MANAGEMENT IN THE YELLOWSTONE ECOSYSTEM

THURSDAY, AUGUST 11, 1983

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION,
Cody, WY.

The subcommittee met at 9 a.m. in the Holiday Inn, Cody, WY, Hon. Alan K. Simpson presiding.

OPENING STATEMENT OF HON. ALAN K. SIMPSON, U.S. SENATOR FROM THE STATE OF WYOMING

Senator SIMPSON. Good morning. Nice to have a good crowd here to hear what I know will be a very interesting hearing.

It's such a distinct pleasure for me to be home and to have sharing this hearing, my friend John Chafee from Rhode Island, who I've come to know and enjoy very much as a colleague and legislator and a very caring person. He is really the author of the Endangered Species Act and the chairman of the Subcommittee on Environmental Pollution.

I told John last night, I said, "John, I'll just take you up South Fork for an evening and show you where my folks have had a place for about 50 years. We'll be back about 9." And Rock Creek disappeared and took the bridge with it. And then Houlihan tore the road in half by T-E; and we got back about 1:30.

But it was exciting, wasn't it, John?

Sure, he liked that. And driving in John Thorne's truck was enough to destroy me right there.

But, anyway, we're back. So, we're going to examine the activities of ursus arctos horribilis in this hearing. We have a rather tight schedule because Senator Chafee has to return to Rhode Island sooner than he intended.

So, I'm so pleased to have him here, as we gather this information together on the new grizzly bear management initiatives from the individuals with hands-on working experience. That is what this field hearing is about; getting into the real world of obtaining facts and informed opinions on how we might prevent the demise of the grizzly bear within the Yellowstone ecosystem. Also, how we might minimize human/bear conflicts without jeopardizing tourism and outdoor recreation and travel; and how we might promote goals of the Endangered Species Act without producing needless land use conflicts. Those are some of the things we'll discuss.

Teddy Roosevelt, of course, one of the most zealous of grizzly bear hunters, he was primarily responsible for setting aside Yellowstone Park for the protection of that species and others. Much has changed since then, and we have a sanctuary for all types of animals within that conclave. I think that the underlying principle remains that Yellowstone Park should be a very special place for grizzly bears.

So much has changed, park policy has changed over the years; the dumps and the closing of the dumps; nonintervention has been the word of the day; leaving things as they were, "naturally." And now we find the grizzly bear on the threatened list under the Endangered Species Act because of population decline.

Certainly some of the reasons for those changes have been the direct result of the intervention and the activities of the Federal Government. And that is the reason for this oversight hearing, to determine what we might do differently and what we should do in the future.

And one, I guess, important thing swirls throughout this debate. There is an unusually large amount of disagreement and conflict among those concerned about the grizzly's fate. I would urge all of you today to continue to seek accommodation and discussion and communication with the diverse elements within this biological and bureaucratic sphere that we deal in. I note some recent progress in that area, and I trust that this positive development will continue.

So, with those remarks in mind, let me just introduce Senator Chafee to you, a man who has been in Wyoming before, in Cora and Pinedale area with his family, Dayton, too, a man of great vitality, a loyal friend, and respected greatly on both sides of the aisle.

John.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Thank you very much, Alan.

First, I want to say what a treat it is to be here in your home town.

Senator Simpson, as you all know, is a very valued Member of the U.S. Senate. He has assumed tremendous responsibilities and has handled all of those tasks with skill, dispatch, grace, and satisfaction to all concerned while carrying a very heavy load. He is one of the most respected and well-liked Senators of the 100 Senators there.

So, it's a pleasure, Alan, to be with you in Cody.

This hearing that we are conducting on the status and management of the grizzly bear in the Yellowstone ecosystem isn't pursuant to any legislation that we have introduced, there is none pending nor contemplated. But, as Senator Simpson mentioned, this is a matter that has received considerable publicity; there have been divergent approaches recommended, and indeed taken. There is a feeling, as Senator Simpson mentioned, that some—to put it mildly—some conflict in views are held by different parties. Senator Simpson and I thought it would be well worth coming out here

to see what actually is going on and hear from those who are most closely associated with the matter.

We have a very fine list of witnesses that Senator Simpson and others have assembled. I look forward to hearing the testimony.

Leading off will be Galen Buterbaugh, who is from the U.S. Fish and Wildlife Service in the region, which is headquartered in Denver, and includes this section of the country. Mr. Buterbaugh has had a lot of experience in the Fish and Wildlife Service, and he is speaking to us with two hats on today: one as the chairman of the—what's the official name of that?

Mr. BUTERBAUGH. Interagency Grizzly Bear Management Committee.

Senator CHAFEE. There must be a psuedonym for that, or an acronym.

Mr. BUTERBAUGH. IGBC.

Senator CHAFEE. IGBC. All right. I'll have to master that.

So, Alan, if you're all set, shall we start?

All right. Galen, why don't you go to it. And we're so glad you're here.

STATEMENT OF GALEN BUTERBAUGH, REGIONAL DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, DENVER, CO

Mr. BUTERBAUGH. Senator Chafee, Senator Simpson, I am Galen Buterbaugh, Regional Director of the U.S. Fish and Wildlife Service's Rocky Mountain and Great Plains region, headquartered in Denver, CO. I appreciate this opportunity to provide a brief statement concerning some recent actions we have taken to more effectively implement recovery of the grizzly bear, a threatened species in the lower 48 States.

Several years of research and study have been conducted on grizzly bears primarily associated with the Yellowstone ecosystem in Wyoming. Recognizing the need to expand the area of study to enhance the bear management program, and to improve the chances of survival for the grizzly bear, the Assistant Secretaries of Interior and Agriculture jointly signed an agreement in April 1983, establishing an Interagency Grizzly Bear Committee [IGBC]. This committee will assist in improving communication and coordination between Federal and State agencies involved in recovery of the grizzly bear. It will serve as the coordinating and directing mechanism for research and management activities, identifying funding needs for grizzly bear work, making joint recommendations to Federal agencies and States, reviewing actions proposed by subcommittees, and implementing the grizzly bear recovery plan.

The IGBC is headed by top-level managers who can ensure that the grizzly bear recovery plan will be implemented in the most efficient manner possible by combining available resources and avoiding duplication of effort. Current members include the regional directors of U.S. Fish and Wildlife Service and the National Park Service, a State director of Bureau and Land Management, three regional foresters of the U.S. Forest Service, and State fish and game directors from the States of Idaho, Montana, Wyoming, and Washington.

The first meeting of the IGBC was held on June 13, 1983, in Denver. In addition to the regular committee members, attendees included other officials of the Fish and Wildlife Service and National Park Service, and a representative of the National Audubon Society. The meeting emphasized and further refined the responsibilities and organizational structure of the new committee. I am currently serving as chairman. My term will be 2 years, and the chairmanship will then rotate among representatives of the member Federal agencies on a 2-year basis. The State directors at the meeting expressed a strong desire for the States to be included as participants in an expanded memorandum of agreement which would more officially formalize their involvement with the IGBC committee. This request is now being effected.

Interim chairmen were selected for the four subcommittees of the IGBC: The Yellowstone Ecosystem Management Subcommittee; the Northern Continental Divide Ecosystem Management Subcommittee, which will also include participation by the Bureau of Land Management and the Bureau of Indian Affairs; the Northwest Ecosystem Management Subcommittee; and the Research Subcommittee. The three management subcommittees will be proposing management actions necessary for grizzly bear recovery, implementing approved management actions, identifying research needs, and establishing specialized teams to implement recovery actions, such as law enforcement or information and education teams. The Research Subcommittee will be responsible for identifying and proposing needed research programs, reviewing and developing research projects, and interpreting research findings. Dr. Chris Servheen, the FWS Grizzly Bear Recovery Coordinator, was named as chairman of the Research Subcommittee.

The next meeting of the IGBC is scheduled for August 17. Subcommittees will attempt to meet before this date to discuss issues and elect permanent chairman. The IGBC will be hearing status reports from subcommittees and task forces, and discussing a proposed operational plan for research efforts in the Yellowstone ecosystem at our next meeting. I am very excited by the cooperation and enthusiasm expressed so far by all involved agencies. This coordinated effort between Federal and State agencies is seen as a truly positive step toward improving the chances of survival for the grizzly bear.

In summary, we believe that our newly established committee will add needed guidance and direction to this very important effort: Bringing the grizzly back on the road to recovery. We can ill afford to allow the grizzly to join the ranks of several other species and become extinct. We believe the commitments being made by top level State and Federal administrators is of great significance and will be the catalyst that is needed to effect recovery of the grizzly bear in all three ecosystems, not just in the Yellowstone area. We expect a more closely coordinated and effective management effort to emerge under the leadership and efforts of the IGBC. To date, I can only applaud the response and enthusiasm shown by committee members. We believe we have established an effective decisionmaking team which will play a very important role in protecting and effecting recovery of grizzly bear populations in the lower 48 States. We are looking forward to this challenge.

Mr. Chairman, this completes my statement. I'll be happy to answer any questions.

Senator SIMPSON. Thank you very much.

Let me ask you just a few questions. Has the Interagency Committee ever submitted Federal research on population data to any outside peer review group?

Mr. BUTERBAUGH. Sir, at this point the committee has only met once. And the subcommittee in research has only had their organizational meeting.

I'm sure that they're even considering including outside research as part of the committee, as well as consulting with any experts on grizzly bears that they can. They put together research needs and review research projects.

Senator SIMPSON. So that would certainly be a plan of the group, to ask for this outside review?

Mr. BUTERBAUGH. Yes.

Senator SIMPSON. You've indicated a recent reorganization. Who is chairman of the Yellowstone Ecosystem Management Subcommittee, and how is that person selected?

Mr. BUTERBAUGH. That person will be selected by the committee members who have been appointed by the Federal and State agencies to the committee. I don't believe there has been a selection. I can check on that.

Dr. Servheen will be up later and he——

Dr. SERVHEEN. I believe Reed Jackson.

Mr. BUTERBAUGH. Reed Jackson.

The reason I'm a little unclear about this, these committees have just met in the last 2 or 3 days, some of them. And some of them haven't met yet.

Senator SIMPSON. And you meet again after this hearing, you meet next week?

Mr. BUTERBAUGH. We meet next week. That would be the top-level managers. The subcommittees are trying to meet separately. Some of them haven't met yet.

Senator SIMPSON. Do you really feel that the committee reorganization will be adequate to improve coordination and communication beyond what has been normal under the previous committee structure; or do you feel that the personalities and differences are going to remain involved in this situation, which leaves us, often, with a conflict?

Mr. BUTERBAUGH. I believe this is the first effort there has been to have the top-level managers, the decisionmakers and those with the resources, the dollars and the money under their control, to all get together as the top-level management committee to deal with this subject of grizzly bear recovery. Before, it's been research committees or lower-level committees; and it's never been top-level management involved.

I'm very optimistic. And the first meeting was a very cooperative effort, and there's a lot of enthusiasm. The original charter had been put forward by the two assistant secretaries just involving Federal agencies. The States were invited to attend. And at that meeting they asked to become offically part of the committee. So we are rewriting the charter, and the four Governors of the States involved will be signing off again.

So, I'm very optimistic that we do have the coordination and cooperation of all the agencies that have management authority over grizzly bear.

Senator SIMPSON. A final question: What does the grizzly bear recovery plan call for in terms of supplementary feeding, habitat creation, and hunting guidelines?

Mr. BUTERBAUGH. I would have to refer that question to Dr. Servheen. We will be discussing that a little bit later when we have the Federal panel. We'll refer to that then.

Senator SIMPSON. OK. That's fine. We certainly will. We want to have that information. That would be fine. Thank you very much.

Senator CHAFEE. Mr. Buterbaugh, having the four States, Washington, Idaho, Wyoming, and Montana, in on the top-level group is some sort of a breaktrhough, isn't it? It seems to me, first of all, I think we've got to acknowledge this isn't the first interagency group that's come into existence. There have been predecessors to this group, have there not?

Mr. BUTERBAUGH. That's true.

Senator CHAFEE. But the States have not been an integral part of it, is that a fair statement, of prior groups?

Mr. BUTERBAUGH. The States have always been involved in varying degrees. At the lower levels are research personnel that are largely dependent on them. I'm not that familiar with the past history to know if their top-level region and State directors have been involved. I don't believe they have.

Senator CHAFEE. I think that's encouraging that they are participating. And you say that they want to get aboard on this?

Mr. BUTERBAUGH. Yes, very much so.

Senator CHAFEE. Will your group look into law enforcement; in other words, the poaching situation at all?

Mr. BUTERBAUGH. Yes, sir.

Senator CHAFEE. Would that be part of your assignment?

Mr. BUTERBAUGH. Yes, sir, it will be. And that has already taken place, because we recognize that human induced mortality of bears is one of the most critical problems we have, and is probably the one we can address the easiest. The law enforcement people have already met, and there's a well-coordinated effort taking place, starting this summer, in trying to reduce illegal taking of bears and to just handle the whole law enforcement activity.

Senator CHAFEE. What's the funding for your interagency group? I don't mean the dollars necessarily, but the source of it. In other words, does it come from Fish and Wildlife? Obviously there are going to be some expenses entailed, particularly, it seems to me, in research.

Mr. BUTERBAUGH. Well, each agency that has funding will be contributing. Whatever their responsibilities are, they will be paying for it. The committee itself has no funding. And the Fish and Wildlife funding is for the recovery activities of the coordinator and some of the studies, and much of it is in law enforcement. So there is no pot. We will be merely making recommendations to the various agencies on the types of research they would like to conduct and coordinating this and reviewing it.

Senator CHAFEE. I would hope that if you are short of money, and the overall expenses in this I wouldn't expect would be sub-

stantial, but if you do have money problems, if you could come and discuss them with us, I think perhaps we could be helpful in that area. This isn't an invitation to come in with a great big bill, but I would hate to see this thing flounder because of money problems.

Mr. BUTERBAUGH. We'll certainly keep that in mind.

Senator CHAFEE. OK. As I said, I was talking small dollars.

Thank you very much, Mr. Buterbaugh.

Senator SIMPSON. Thank you very much. We appreciate what you're doing, and we're looking forward to monitoring that in our oversight capacity.

The next panel on my list will be, Frank Craighead, researcher; indeed, a very reputable person in that area; and Alston Chase, a noted author on the issue of the grizzly; and Dr. Povilitis, Citizens for Yellowstone's Bears. If that group will please come to the table.

We don't have you down yet, Bill.

Mr. VANHEKAMP. I'm representing Dr. Frank Craighead.

Senator SIMPSON. I see.

Mr. VANHEKAMP. Dr. Frank Craighead contacted me about 10 days ago and asked me if I would read his statement at this hearing.

STATEMENT OF DR. FRANK C. CRAIGHEAD, JR., PRESIDENT, CRAIGHEAD ENVIRONMENTAL RESEARCH INSTITUTE, MOOSE, WY, PRESENTED BY MR. BILL VANHEKAMP

Gentlemen:

My name is Frank Craighead. I live in Moose, WY. I am an ecologist by profession and have studied grizzlies for many years. I would like this to be made a part of the official record of these hearings.

I appreciate this opportunity to make a few brief comments on current grizzly bear management, as I am greatly concerned over the deteriorating status of the grizzly bear in the Greater Yellowstone ecosystem. I have not officially had such an opportunity for quite a few years, and wish to thank Senator Alan Simpson's office for inviting me. I am disappointed that I cannot appear in person. Due to the shortness of the notice on the hearings and my imminent departure for Alaska, I will limit my remarks to a few management recommendations.

On the basis of my past research work, combined with my knowledge of current research findings, I believe the grizzly bear population in this Yellowstone ecosystem has reached a critical state. The high number of known annual bear mortalities and the present low reproductive rate mandate that some innovative management steps be taken if the grizzly is to survive in this Yellowstone area. I agree with Rolland Wauer, chairman of the Interagency Grizzly Bear Steering Committee, that "Evidence persists that the population of grizzly bears within the Greater Yellowstone Ecosystem has seriously declined in recent years." However, I would amend this to read: has seriously declined since 1968. Wauer's memorandum of August 17, 1982, suggests an ecosystem population of 187 grizzlies. I believe it is considerably below this.

The question now at issue is: Are adequate steps being taken, and is enough being done to ensure the survival of the grizzly bear in this extensive Yellowstone Park—National Forest area? I don't think so.

Back in the early 1970's my brother, Dr. John Craighead, and I made numerous management suggestions based on the results of our years of research on the grizzly bear. In my book "Track of the Grizzly," published in 1979, I included a chapter on "Management of the Yellowstone Grizzly." These 16 recommendations are still pertinent to the situation today. The optimum time for taking some of these actions is passed. In some instances it could be too late. Time is running out for the grizzly. I will confine my remarks to 2 of the recommendations that are particularly pertinent to the present situation.

Recommendation No. 12 was:

"Every human injury or death should be thoroughly investigated and its probable cause determined. This should be done by independent investigators. One of the surest ways to reduce grizzly bear injuries in the long run is to conscientiously in-

vestigate each incident, determine a pattern of cause, and take steps to correct the situation that precipitated it. This has not been done."

As of today, it still has not been done. The death on June 24, 1983, of William May by a grizzly bear demonstrates why it should be undertaken. Would a thorough investigation of this incident and the events leading up to it give us a clue to the cause for the attack? I think it would.

Such investigations must be carried out independently of Federal or State agencies. It is impossible for Federal agencies to carry out an unbiased study when under the Tort Claims Act they could be liable for negligence as related to the bear/man incident. Any step that decreases bear/man confrontations and reduces human deaths will save the lives of grizzlies as well.

As one solution to this problem, I suggest that a private organization—for example, the Wyoming Wildlife Federation—seek to raise funds for such an endeavor.

The other management recommendation that I wish to make today is treated in section 9 of the management chapter in my book, Track of the Grizzly. The concentration of grizzlies at food sources, such as dumps or at baits (animal carcasses), in areas where they are zoned away from people can do more to reduce bear/man confrontations, injuries and human death than any other single management procedure.

Grizzlies are currently distributed throughout the ecosystem, some near campgrounds and others at the ecosystem peripheries. In both places they are vulnerable to official control actions, to poachers, hunters, and stockmen. Grizzly bear mortalities can be decreased by baiting these bears back into the center of Yellowstone National Park during summer and concentrating them in selected, isolated areas where contact with humans will be at a minimum. Baiting, the strategic placement of animal carcasses (or other food), is a tested and workable technique. However, it will take time to again concentrate grizzlies in suitable sites within the park. A decision and a start on such a program should be made immediately if it is to be successful. It will take time to once again concentrate grizzlies—perhaps as much as 5 years or more. Grizzlies will go where there is food, and especially available food. Controlling the bears through food supplies is preferable to losing them altogether. Such a management procedure does not set a precedent. I think it should be tried.

It seems to me that when ecosystem are so altered that they can no longer adequately fill the needs of a species, some degree of management by man must fill the void.

Senator SIMPSON. Thank you, very much, Bill.

I understand that Mr. Chase was unable to attend the hearing today but has submitted an article from the Atlantic Monthly and asks that it be included in the hearing record. So, without objection, we will include the article. (See p. 64.)

Next is Dr. Povilitis, Citizens for Yellowstone's Bears.

STATEMENT OF DR. A. POVILITIS, DIRECTOR, CITIZENS FOR YELLOWSTONE'S BEARS, BOULDER, CO

Dr. POVILITIS. Perhaps I can offer somewhat of a different perspective than most of the people that are testifying this morning. I haven't been nearly as intimate with the grizzly bear situation as many others have.

It was just this past March, in fact, that I was standing on the side of a mountain in Patagonia and I received, via a horseman, a number of letters. And in those letters were copies, or several copies of articles that had recently been written about the plight of the grizzly. And I thought to myself that it seems so tragic, as I contemplated the grizzly down there in those Andean wilds, that great bears should be vanishing from the world's first, and surely among its most magnificent, national parks. I thought quite a bit about grizzly bears in Yellowstone; and in my mind, they've always been inseparable, as in the minds, I'm sure, of countless other Americans. And at the same time I was thinking in terms of what

could be done, what is happening to the grizzly and what could be done to save them.

So, on returning to the States in May, I met with a number of other concerned citizens in Boulder, CO. And we decided to take a look at the situation and maybe come up with some new ideas or perspectives.

So, my testimony here is actually the results and the summary of our inquiry.

I won't get into the statistics about the declining population. I think there's an abundance of evidence that what we have in Yellowstone now is a small remnant population that is pressured very heavily by habitat loss and encroachment, a high man-caused mortality rate, and, most unfortunately, it seems, the lack of a truly comprehensive conservation program on behalf of this bear.

America's full commitment to the species will be reflected, ultimately, in the amount and the quality of grizzly bear habitat that we allow for it.

Continued withdrawal of bear habitats for other uses and increased human encroachment into remaining habitat means further loss of living space for the bears, more bear/human conflicts, more accidental and controlled killings of bears, still fewer bears, and eventually extinction of the Yellowstone population.

No one that I know of can yet say how much additional habitat loss this species can sustain before it disappears from the Yellowstone area.

Many biologists feel that the critical point is nearing, and that we must, in terms of habitat, leave this last slice of the pie for the bears.

In terms of the grizzly bear's future in Yellowstone, two basic courses of action are open to us:

No. 1, we can continue to permit the destruction and degradation of grizzly bear habitat, attempt to compensate for this through bear management, and hope that with luck the bear survives. In effect, we are for the bears, but lack the will to remedy the root cause of the animal's plight. We would continue to allow development of the Yellowstone area, knowing full well that such is largely irreversible. If the bears die out, it will be impractical, if not impossible, to bring them back. And I think that history bears us out on the difficulties of reintroducing species once they are extirpated.

This is our choice No. 2--and I think this is a very different approach than the one we've been taking over the last 15 years. We can give the grizzly bear the benefit of any doubt about its habitat needs, manage ourselves by ending all further loss and degradation of bear habitat in the Yellowstone ecosystem.

This course of action, of course, is politically difficult; but it would reflect highly upon America's commitment to its wildlife through the 1980's. It would also reaffirm our desire to maintain Yellowstone as a true biosphere reserve of international repute.

We would provide the space necessary to assure the survival of the grizzly bear in recognition of its cultural, ecological, scientific, aesthetic, recreational, and educational values, and of its right to a continued existence in American West.

One of our members of our group, Citizens for Yellowstone's Bears, has prepared testimony on cultural values of the grizzly bear. I'd like to submit that later.

We would be far more concerned with providing ample habitat for a viable and healthy bear population than with the issue of critical habitat, which is always argued. Critical habitat often means the minimum amount that we must leave and still have at least some bears. Our decision to halt further withdrawal of bear habitat for other purposes would be reversible, in contrast to our choice, that first possibility, if it became clear that such a population actually requires less space.

I challenge the biologists who are working on our grizzly bears currently to clearly define what are the habitat requirements for a healthy and viable population. Can they draw a line on the map? I think this has been done, but it's been shot down over the years.

OK. Choice No. 2, that of guaranteeing sufficient habitat for the grizzly bear would undoubtedly require special legislation for managing the Yellowstone ecosystem as an area of national priority for this species.

In 1870 Americans recognized the great beauty of the Yellowstone area, formulated the idea of a national park, and within 2 years enacted legislation toward that noble end. In 1983 we can act in kind and as quickly in coming to the aid of Yellowstone's great bear.

I won't take too much more time. I have some other comments.

Senator SIMPSON. We do have a 5-minute limitation. I just wanted to call your attention to that. If you could summarize.

Dr. POVILITIS. I'll try to wrap up with some other ideas, Senator Simpson.

Obviously the situation involved with the grizzly bear mortality is a very severe one. I would suggest that solutions, very strong solutions have to be found for the problems of poaching, for the problems of illegal accidental killing, and also the problems of killing of grizzlies by livestock owners.

We also have to minimize bear/human conflicts. I think that everybody in this area, particularly, has a reasonability in handling garbage, and make sure that it doesn't draw grizzly bears.

We need scientific research to help find ways to keep grizzly bears and humans apart, perhaps a fencing and alarm system for campgrounds; perhaps the use of bear repellents in the back country. And we certainly need to do a lot more about understanding bear behavior. There are plenty of very good pathologists in this country that could take a look at that.

And, finally, I think that we're going to need to acknowledge the grizzly bear's plight and act accordingly. And I get the impression from visiting the park and from reading statements by, for instance, the Superintendent of Yellowstone National Park, that the Park Service—at least certain quarters—denies that the grizzly bear population is declining and in jeopardy. You can go to the park and you get estimates of population numbers, 250 to 400 bears, which is in contrast to what we actually have.

Just to sum up, I think that there's a lot that needs to be done. I'm extremely thankful to Senator Simpson and Senator Chafee for taking the opportunity to hold this hearing.

And also, a member of our group has a number of—two "Save the Grizzly Bear" T-shirts for you gentleman as a gesture of our appreciation for your interest and concern.

Senator SIMPSON. Thank you, very much, Doctor.

We may submit questions in writing to Frank Craighead. I do have some questions that I know he will respond to, and we'll get those to him.

I just have a couple of questions for you, doctor. Do you feel that adequate provisions have been made within the structure of the Interagency Committee to allow a thorough public participation?

Dr. POVILITIS. I'm glad you asked that question, because, to be honest with you, I don't. And again, this comes from a very limited amount of experience in addressing this issue on an intimate level. But I really feel that there's a tremendous amount of public skepticism about what is being done and public mistrust. And I interviewed probably 300 people in Yellowstone as part of an effort to get information to them about—give them an alternate perspective, an alternate information about what's happening to the bears. And my impression was that people are extremely concerned but they're also extremely skeptical.

I think that perhaps an independent group of people that would include conservationists and ranchers and outfitters who have other interests in the bears as sort of a consulting committee to some of these groups, these Federal groups that are being formed would be an excellent idea.

Senator SIMPSON. Let me ask you another question. Do you feel that the park itself should be a place of very special protection, or do you believe that all areas within the Yellowstone ecosystem should receive the same amount of attention?

Dr. POVILITIS. I would think that obviously the park being the core area for the grizzly population is definitely of tremendous concern. However, since these animals do have very large home ranges that take them more often than not outside the park, the whole ecosystem seems to be very, very critical. I just feel that perhaps—I'm less than convinced that the Park Service really and truly believes that the species is threatened, as it apparently is. I think they would take action, for instance, on this supplementary feeding possibility. I admit there's a lot of technical problems. But as I think you gentlemen mentioned, we can get outside technical help if that's necessary.

I think that another example is the Grant Village development, right in the middle of Yellowstone National Park, something like $20 to $40 million worth of development going on right in the top of an area that has been heavily used by grizzly bears. I would suggest that that development be canceled; or in the very least, let's have a reevaluation of the Grant Village development concept plan and invite the public for full comment.

Senator SIMPSON. John, do you have any questions?

Senator CHAFEE. What do you estimate to be, from the interviews—you say you conducted some 300 interviews—what do you come up with an estimate of the present grizzly population in Yellowstone?

Dr. POVILITIS. Well, the interviews were with visitors to the park. There was a tremendous amount of confusion because of the differ-

ent types of figures that are being tossed around. Even some of the wildlife exhibits still say there are 250 grizzly bears in the park itself. I go by what the interagency study team has come up with, and that's an estimate of 183 to 207, with an absolute calculated minimum of 139. And that, from a biologist's standpoint, is a very shaky situation.

Senator CHAFEE. OK. Thank you both very much.

Dr. POVILITIS. Thank you, Senator.

Mr. VANHEKAMP. Thank you.

Senator SIMPSON. Let me assure all of those who are here today, any member of the public wishing to submit written comments on this issue may do so by sending them to the Senate Environment and Public Works Committee. We'll furnish you the address, just Washington DC, actually. It will be included as part of this hearing record. If you'll get those to us before September 1. So, any member of the public here or anywhere who wishes to submit in writing, please feel free to do so; and it will be part of the official record.

Let me also just take a moment to introduce members of the staff. This is Brent Erickson of Casper, a member of my staff, serves me on the Environment and Public Works Committee; and Senator Chafee's very capable person, Steve Shimberg; and Martha Pope, representing the minority staff and also Senator George Mitchell of Maine; and Rick Green over here of the committee staff; very capable people that I've come to know and work with, I assure you.

So the next group will be a panel of two, Gene Knoder, regional Audubon Society representative; and John Barlow.

All right, please, sir, if you would present your remarks.

STATEMENT OF C. EUGENE KNODER, ON BEHALF OF THE MURIE AUDUBON SOCIETY, CASPER, WY

Mr. KNODER. Mr. Chairman, I'm a member of the staff of the National Audubon Society. However, I'm appearing here on behalf of the Murie Audubon Society of Casper, WY. This is a statement that was prepared by the Murie chapter. Fortunately, or unfortunately the president of the chapter is a petroleum geologist and he just had a well come in; so he was unable to be here. He asked me to present this statement for him.

Senator SIMPSON. Things the way they are in Wyoming, we're very pleased.

Mr. KNODER. I didn't know whether it was fortunate or unfortunate. But I think for his livelihood, it has to be fortunate.

STATEMENT OF W.R. MERSCHAT, PRESIDENT, MURIE AUDUBON SOCIETY

Mr. Chairman and members of the committee, I appreciate this opportunity to present, on behalf of the Murie Audubon Society's 600 members, our views concerning grizzly bear management in the Yellowstone ecosystem. The statement which follows was arrived at by a thorough discussion during a lengthy special meeting of our society's board of directors and was approved unanimously.

I wish to point out also that in recent months, two of our society's regular full-membership meetings were devoted exclusively to consideration of Yellowstone grizzly bear management. One meeting featured a presentation by Dr. Alston Chase, and the speaker at our second meeting was Dr. Chris Servheen. Therefore, we believe the views we are presenting here are informed and balanced.

With that introduction, Mr. Chairman, I will proceed with our testimony.

We, the board of directors of Murie Audubon Society, realize the Yellowstone grizzly bear population, especially breeding females, has declined drastically in recent years. We strongly support the current efforts directed at recovery of the grizzly population to a self-sustaining level, and realize determination of that level is a complex problem that will require long range, continuing studies. We commend the recent aggressive initiatives of the many agencies and organizations involved in Yellowstone grizzly bear management. We are also deeply appreciative of the interest and support of Wyoming's Members of Congress, Governor Herschler, and our State game and fish agency. We urge your continued support.

We firmly encourage the following management actions directed toward the goal of recovering a self-sustaining grizzly bear population in the Yellowstone ecosystem.

No. 1, adoption of a policy by all governmental jurisdictions that gives preference to the well-being of the grizzly, both individuals and the total population, in cases of bear/human conflicts.

No. 2, coherent management of the entire Yellowstone grizzly ecosystem regardless of jurisdictional boundaries.

No. 3, a moratorium on development in the entire Yellowstone grizzly ecosystem until a stable, self-sustaining population has been determined and established. This includes, especially, Yellowstone National Park, and specifically, Grant Village. Timber sales in Gallatin National Forest as well as road construction in Shoshone National Forest could be disastrous to grizzly bear habitat and should cease immediately.

No. 4, a moratorium on all bear hunting within the Yellowstone grizzly bear ecosystem.

No. 5, stricter law enforcement and stiffer penalties for shooting grizzlies. this includes restoration of U.S. Fish and Wildlife Service budget cuts and replacement of the retiring Fish and Wildlife Service law enforcement agent for Wyoming.

No. 6, further restriction of seasonal human access to critical habitat areas throughout the entire Yellowstone grizzly bear ecosystem until a stable, self-sustaining population has been established.

No. 7, preparation, organization and experimental field testing of an emergency supplemental feeding program that can be implemented immediately if other management procedures prove inadequate. Consideration should be given to utilizing surplus elk and bison.

No. 8, the National Park Service should actively encourage independent research by qualified scientists in order to expedite collection of data on habitat and populations.

Of immediate importance to this hearing is the inclusion in the Senate appropriations bill of funds for purchase of the Squirrel Meadows Ranch in the center of the Targhee National Forest. Also road construction and timber sales within grizzly bear habitat in national forests should immediately cease and old roads should be closed whenever possible.

Mr. KNODER. Thank you.

Senator SIMPSON. John Barlow, please.

STATEMENT OF JOHN PERRY BARLOW, WYOMING OUTDOOR COUNCIL

Mr. BARLOW. Senators Simpson and Chafee, staffers for the committee, and friends: My name is John Perry Barlow, and I speak for the Wyoming Outdoor Council. These are my opinions, because the board did not have an opportunity to formulate a position on this.

I'd like to think I'm actually speaking for the ursi arctos horribili of the Greater Yellowstone ecosystem, whose tenuous existence here brings us together today.

I am not an expert on grizzlies. During my life in the Wind River Mountains, I have encountered only one; and that encounter was as brief as the bear and I could make it. I do, however, live in an area of abundant wildlife, and I have developed a fairly clear sense of my own human involvement in the ecosystem I share. Humans are a critical ecological element anywhere they set up camp; and it

is to that general point, and what I think is the Park Service's wrong-headedness on it, that I will direct most of my recommendations today.

Let me begin by citing the very important work on grizzlies which had been done by Drs. John and Frank Craighead before the Park Service irrationally shut them down. I would especially like to call your attention to the testimony and monographs they submitted to a hearing on this same topic in 1977. The validity of their data and recommendations has been underscored by the way in which the grizzly situation has gone even further to hell since then. I'm sure they take cold comfort in being proven right, however. I can only hope that this time they will be heeded and allowed to reinstitute their landmark study of the Yellowstone grizzly. If I could make but one recommendation today, it would be this: Restore the Craighead study team.

A national park is not a natural habitat for grizzlies or any other animal simply because we would romantically have it be so. Any place man comes changes. He becomes a critical, even controlling, element in the ecology. Their second point, which I would repeat, is that this not necessarily a bad thing, so long as we recognize it. As the Craigheads have noted, the grizzly coexisted amiably for millennia with the Indians. There is no reason to think they cannot do likewise with us. Indeed, they might profit from their relationship with us. We are both omnivores. The grizzly can thrive on what we throw away. We have only to abandon the shallow Federal fantasy that a bear eating garbage is not a natural bear. If it were unnatural, I don't think it would do it.

Which brings me to my first recommendation: Reopen the dumps. I think the present plight of the bear in Yellowstone descends directly and clearly from the dumps being closed. When the white man came, he decimated the grizzly population by hunting and changing their migration patterns, but he brought them an important new supply of food—his own. And the grizzlies managed pretty well for the next 100 years. Now, 13 years after the dumps were closed, there is reason to think that the grizzlies are about to vanish from this region.

Of course, there are hazards whenever man comes into contact with an animal he has named horribilis. For that reason, I would recommend that the dumps be relocated into more remote areas of the park and made strictly off limits to all but sanitation personnel and, of course, members of a newly authorized Craighead study team.

There are to arguments against this. The first is that bears eating garbage will develop a taste for the foodstuffs found in backpacks. I don't buy that. The grizzly is as capable of an appetite for unknown foods as we are. He is not only an omnivore, but a rather openminded one. The other is that if the bears congregate, the boars will eat the cubs. It is my belief that grizzlies congregate naturally, as their cousins do on Kodiak Island. But the dumps might be opened gradually with special attention to any eaten cubs.

Second, I recommend that the Interagency study team be abolished as its functions are reassumed by the Craigheads. The same group of agencies could then come up with a team which would

assume from the Park Service the actual management of the grizzlies.

Third, I recommend that the Wyoming Game and Fish reinstutute a very limited kind of trophy hunting on grizzly bears—boars, that is, excuse me. The reason for this perhaps startling proposal is that the Wyoming Game and Fish Department has an extraordinary record of game management which has resulted in game populations which, for some species, are greater than before our coming. A fall hunt would intensify awareness of the grizzly status, put a valuable spook of human beings in the bears, and reduce the purported danger which the boars represent to the cubs.

Fourth, I believe that the park should be divided into management zones ranging from the inhabited and trammeled to those areas where man rarely, if ever, sets foot. In the latter, it might be possible to maintain natural ecological interaction which the Park Service presently imagines obtains everywhere. In the former, more creative solutions for intensive management might be tried with the promotion of a better understanding of how bear and man interact. Somewhere in the middle, I would suggest scattering carrion gathered from nearby wildlife refuges as a supplement to the grizzly menu. I believe the aroma of such carcass dumps would deter the idly curious from disturbing the banqueting bears.

Finally, Senator Simpson—and I hate to keep hammering on you about this—I think you're going to have to look at the Wyoming wilderness bill, with a special emphasis on grizzly habitat in the northern Shoshone and other areas adjacent to Yellowstone Park. While I am not adverse to positive interactions between men and grizzlies, much of what the Forest Service will promote in the wild lands released for developoment by your bill won't be positive from the grizzly's angle. Clearcutting, roading, and oil and gas development will encroach upon grizzly habitat without any nutritional benefit. Those nonpark areas which are present or potential habitats should be declared wilderness to the greatest practical degree. If you are truly interested in saving the bear, you might start with the means already before you in the Bill.

I appreciate the opportunity to present my views on this critical matter. The grizzly bear is a magnificent animal whose continued presence in the lower 48 can be viewed with pride. That pride can be yours, gentleman, but only if you move at once to restore productive research techniques. The taxpayer cannot afford another set of hearings on this subject which produce nothing more than dusty manuscripts. And the grizzly cannot afford further mismanagement by the Park Service.

Senator SIMPSON. Thank you very much, John. A very provocative message, as always.

A few questions. Mr. Knoder, besides the reward program which is presented by your group, does Audubon or the Nature Conservancy have any plans to purchase any grizzly habitats in the State?

Mr. KNODER. Not to my knowledge, sir. I can speak for the Nature Conservancy, of course. I know they have purchased substantial amounts of grizzly habitat in Montana, but not to my knowledge in Wyoming. And I don't know that we have plans or the money to do so.

Senator SIMPSON. What do you feel the Park Service could do to increase visitor awareness or to decrease human/bear confrontation within the park? What's your thought?

Mr. KNODER. Senator Simpson, I attended a meeting last fall, about 6 days, just prior to the Bali National Parks Conference, which is held once every decade. And we had a 6-day meeting, and I think it was the consensus of national park administrators throughout the world that a mistake has been made in national parks, two primary ones. One, that they're too small. And the other is that they allow development within the national parks. The trend seems to be that the latter mistake should be corrected by installing facilities outside of the parks rather than within the parks. And my personal view is that that is a trend that should perhaps be started in Yellowstone.

As the Murie Chapter's testimony pointed out, they object very much to the installation of Grant Village and other developments within the park.

Now, if I could elaborate just a moment on that. An analogous case is the National Wildlife Refuge System. There is a Refuge Recreation Act which authorizes the Fish and Wildlife Service to purchase lands outside of the refuge for visitor facilities and visitor centers. And I think something comparable to that would be appropriate for the national parks.

Senator SIMPSON. I was telling John Chafee last night, this is a community where we had the first National Park, first National Forest, first reclamation project in the Buffalo Bill Dam, first ranger station. A lot of that came from the ties between A.A. Anderson, Buffalo Bill, Teddy Roosevelt, interesting things. Teddy Roosevelt and Mr. Audubon himself were avid hunters. My question is: Do you feel that sport hunting of grizzly bears some time in the future could be a valid management tool outside of the National Park?

Mr. KNODER. Our National Audubon Society's position on hunting is that we have no objection to well-regulated sport hunting. If the grizzly bear population recovers to the extent that it can sustain a hunting removal, say in the National Forest surrounding Yellowstone National Park, I think the National Audubon Society would have no objection to that management technique.

Senator SIMPSON. Final question. Do you have any thoughts on how the Park Service might join with the Forest Service in interpreting the liberalizing or commenting upon the natural fire burning policy, which we are advised, at least by some, that would increase or rejuvenate bear habitat? In other words, we see a large stand of lodgepole or other trees, and that is not bear habitat. Bear habitat is meadow lands. And I ask what are your thoughts on that, recreating or rejuvenating meadow land habitat?

Mr. KNODER. Well, Senator Simpson, I'm a biologist, and I'm really not well versed on that problem in Yellowstone. Generally, I do know that in other situations with which I'm familiar, fire is a very advantageous tool we use in setting back planned succession, and many times creating food and browse plants. That's a question that I'd like to study with Dr. Servheen.

Senator SIMPSON. Thank you, sir.

Senator CHAFEE. Mr. Knoder, in the preliminary study I did in connection with coming out here and the interest I developed in connection with the grizzly bear, which really stemmed from, that article that Mr. Chase wrote last year that stimulated my interest; and I thought we'd look into this.

But one of the points that constantly comes up is the poacher problem, the illegal killing by man of the grizzly. Your organization has been active in the reward program. I have two questions. One, has it produced much results? And, two, do you think that the prosecution of the cases is adequate, the U.S. Attorney proceeding to prosecute offenders? What's been your experience in this area on both of those: one, the rewards; and two, the prosecution?

Mr. KNODER. Yes, sir. First, as far as the rewards are concerned, I think the reward system has had some positive benefits. There are, I believe, two or three cases have been successfully prosecuted; and there are at least three or four in the process of being investigated at the present time as a result of the reward system. As long as that seems productive—and the agency personnel tell us that they believe it is an excellent program—we intend to continue that.

Senator CHAFEE. That is the reward program?

Mr. KNODER. That's right.

With regard to prosecution, that has been a matter of rapid evolution here within the last several months, or even within the past year or so. Prosecution has not been adequate, in our view, until fairly recently. But with the stepped up cooperation from the agencies, the Justice Department, and the States concerned, I think that is improving rapidly. We're pleased with the progress.

Senator CHAFEE. Do you have any comments on that, Mr. Barlow? And does the U.S. attorney defer to the States? How does that work, from your experience, what you've seen in the prosecution?

Mr. BARLOW. The U.S. attorney has not been deferring to the States, as far as I can tell. And that is one of the things I think probably should be done.

The Wyoming Game and Fish Department has a rigorous stance on prosecution and enforcement. And if we set up another kind of management team along the lines of the interagency study group, but to manage and enforce grizzly populations—enforce the laws regarding grizzly populations, I think the game and fish would be capable of enforcing these laws a lot better. I think they could do the job.

Senator CHAFEE. That was some sort of a blockbuster you dropped when you suggested there be a hunting season for the grizzly. Is that for now or when the population recovers?

Mr. BARLOW. I think the population would have to recover somewhat. But I think that in the relatively immediate future, there could be an extremely limited trophy hunt for boars. I think that that would help relieve some of the pressure that's now on the sows. And I think that it would bring the grizzly into the game management techniques which the Wyoming Game and Fish has perfected over a period of years and has shown success with.

Senator CHAFEE. What do you think of that, Mr. Knoder?

Mr. KNODER. I don't want to give the impression that we're at all complacent about the status of the grizzly bear in the Yellowstone ecosystem. We think it's very critical. With regard to hunting, the testimony that I presented suggested we close all bear seasons; and we would surely oppose, vigorously, any attempt to open bear season in the vicinity of Yellowstone at the present time. We have advocated, as a matter of fact, the closure of the black bear season because of the record of hunters mistaking grizzly bears for black bears. And there have been grizzlies killed as a result of the black bear season.

I fail to understand how a hunter can be expected to distinguish between a boar and sow.

Senator CHAFEE. Well, I was going to ask that myself.

How about that, Mr. Barlow? If people can't tell a black from a grizzly, suppose they start trying to tell a boar from a sow?

Mr. BARLOW. Senator, that's the weak point in my argument.

I was afraid you were going to find that.

Senator CHAFEE. Well, I was tiptoeing around it. I was saying to myself: "You fellows out here know the difference that easily? Maybe they're a lot smarter than I am."

But that's a pretty gaping hole in your argument.

Mr. BARLOW. Well, it is if you assume that we're going to have a wide-scale hunt. But I'm talking in terms of maybe putting out as few as three or four licenses a year; but just enought to bring the grizzly in under the game-management techniques that the game and fish uses for other game species.

The Wyoming Game and Fish is not presently equipped, either financially or in terms of the way it operates technically, to deal with nongame species. And basically all I'm suggesting is that by creating a hunt, you would create a different posture for the game and fish to take with regard to the grizzly. And I think they do a very fine job.

Senator CHAFEE. Well, again, it's a pleasure to have heard your testimony, both you gentlemen.

Mr. Barlow has taken the trouble to come to Washington and testify before our committee; and it's good to see you again.

Senator SIMPSON. Let me just thank you. I share that fact, that he certainly does present effective testimony on behalf of his group wherever he appears, in Washington or here.

It is interesting, John, that you see in the State of Montana there is a grizzly bear season. And so that here is the same central ecosystem, you could say, certainly a wide range. But that is a provocative element of it, where there is a legal hunting of grizzlies.

Let me ask just one other question, John. In a supplementary feeding program, carrion, something like that, what is your further thought on that; rather than a dump with the regular collection of materials, a placement of carrion at certain locations? What is your view of that?

Mr. BARLOW. I would support it. I think that it's a good idea. I think that the only way to do it at the moment, without creating unnecessary man/bear conflicts and without compromising the suggested natural zones of habitat, would be dropping it from helicopters, which is kind of an expensive program. But I really think that it would be helpful for the grizzly. And the means are immediately

at hand. I don't have the exact figure of how many elk die on the feed ground down at the wildlife refuge in Jackson every year, but it's a signfiicant number. It's a lot of grizzly food.

Senator SIMPSON. Do you favor a total moratorium on development in the Yellowstone ecosystem? What is your thought on that?

Mr. BARLOW. I think it's a little late to turn back the clock on Yellowstone Park itself. But I do think that there are a lot of wild areas which have been identified by the Forest Service as being present grizzly habitat or potential grizzly habitat where the bears have been moved back for reasons that are not clearly understood, that were recommended by the Forest Service for wilderness, which have not been put in your bill to be designated as such. And I think that it's not a matter of putting a moratorium on development; it's a matter of not encouraging the kind of development which the Forest Service is going to encourage with the release language you have in that bill.

Senator CHAFEE. One other question.

The reopening of the dumps, it seems to me that obviously when Mr. Barbee, superintendent of the park, comes before us, we're going to be asking him the answers to the questions you've posed, because these are questions that have come up so often. But dumps now, I suppose, are different from dumps of 20 years ago, in that you've got all kinds of plastic materials and materials that it seems to me that could quite well cause the death of bears in indigestible items. Cans have been around for a long time, but I'm talking about, particularly, plastic-type materials, styrofoam, and all that, that end up in any junkyard, does that present any cause for concern?

Mr. BARLOW. Well, as I say, I am not an expert on the grizzlies. But I have a great amount of respect for their intelligence. An omnivore, by his very nature, learns to find the difference between something he can eat and something he just flat can't. And I think they're probably pretty clever about that sort of thing. I don't know. I would defer to someone who had more experience with it.

Senator CHAFEE. OK. The following question, of course, would be: Was it a success in the past, as far as preserving the species, I guess it was, at least from the material I read from the Craighead reports and from what Mr. Chase said in his article; and it wasn't disease producing or debilitating.

Well, we'll be passing some of those questions to Mr. Barbee and Mr. Brown when they come up. Thank you.

Senator SIMPSON. Are you aware of the story of the man that bought five sows and five buck deer, and then the curious thing had some type of breeding arrangement there and made a great deal of money and he soon had 100 sows and bucks.

Senator CHAFEE. On that high note.

Senator SIMPSON. OK, we'll have our next panel.

Please come on around and have a seat.

We have a panel consisting of Bob Barbee, our new superintendent of Yellowstone National Park; Gary Brown, park biologist; again, Galen Buterbaugh, regional director, U.S. Fish and Wildlife Service; Chris Servheen, U.S. Fish and Wildlife Service biologist; Craig Rupp, regional forester; and Ken Wood, acting Shoshone forester.

Nice to see you, and nice to have you with us. How are you this morning?

So, if you'll just proceed in that order. We might have to you distribute that microphone a bit as you testify.

Mr. Superintendent Barbee, nice to see you again.

Senator CHAFEE. Do you have a statement you're going to present?

Senator SIMPSON. Did you have a statement you wish to present at this time?

Mr. BARBEE. Senator, Galen Buterbaugh represented the Department with a general statement. So we were simply going to be responsive.

Senator SIMPSON. Good.

Mr. BUTERBAUGH. Senator, we have a statement, Dr. Servheen has a statement.

Let me kind of introduce this. Again, I'm Galen Buterbaugh, and now I'm wearing my other hat as regional director of the Fish and Wildlife Service. And I'm going to exercise my prerogative very quickly as regional director and delegate further discussion to Dr. Servheen, who is the Fish and Wildlife Service grizzly bear coordinator.

I might just mention to you in passing that Fish and Wildlife Service is the only Federal or State agency involved with the Grizzly bear that does not actually have lands on which grizzly bears are found. Our involvement in this full grizzly bear recovery activity has to do with the Endangered Species Act; and our main involvement is section 7000, consultation with other Federal agencies and coordination and communication through the IGBC to make sure that all the Federal and State agencies involved with the grizzly bear are aware of what each other is doing.

And this is Chris' responsibility to act as a coordinator and deal with all of these agencies. And in that capacity, he has a statement that kind of sets the stage and gives us a background on the current status of the grizzly bear that's taking place.

Senator CHAFEE. Could I just ask a question, if I might, Galen. If all went well, what would you envision the Interagency Task Force on the grizzly doing? You would arrive at some conclusion, that is, the status of the numbers of the grizzlies, what type of feeding should or shouldn't be done, what additional areas are needed or not needed; and then what, you make a report? And who would carry this out, who would see that it's done?

Mr. BUTERBAUGH. The land managing agencies that have the responsibility for the National Parks and National Forests or the States that are involved would actually be carrying out the recommendations that they agreed to that were arrived at through the committee.

Senator CHAFEE. I see. So you think that this interagency group that you have—which I think are fortunate to have your leadership, let me just say that. You and I have been associated for many years, and you've always done an excellent job; and the Government is lucky to have you, and this interagency group is lucky to have you.

Mr. BUTERBAUGH. Thank you, sir.

Senator CHAFEE. But you think that you've got the tools there to accomplish something in this task that we're all devoted to; is that right?

Mr. BUTERBAUGH. We certainly have the mechanism for coordinating and communicating put together finally. And whether or not we have the tools, remains to be seen, such as funding and the other things that we may need.

Senator CHAFEE. You mean if added lands were needed, for example, it's been suggested that you wouldn't have the money for that probably?

Mr. BUTERBAUGH. No.

Senator CHAFEE. OK. Fine. Thank you.

Mr. BUTERBAUGH. Yes, if you would please proceed with that statement that you have.

STATEMENT OF DR. CHRISTOPHER SERVHEEN, GRIZZLY BEAR RECOVERY COORDINATOR, U.S. FISH AND WILDLIFE SERVICE

Dr. SERVHEEN. Mr. Chairman, members of the committee.

My name is Chris Servheen, and I am the Grizzly Bear Recovery Coordinator for the U.S. Fish and Wildlife Service. I appreciate this opportunity to draw together our ideas on grizzly bear recovery.

At present there are about 19,000 square miles of occupied grizzly bear habitat in the lower 48 States. This occupied grizzly bear habitat is divided into six grizzly bear ecosystems which span four States. Within these six ecosystems, the grizzly bear population is now between 700 and 900 animals. Most of this population is contained within the Yellowstone ecosystem and within the Northern Continental Divide grizzly bear ecosystem in Montana. And the Northern Continental Divide ecosystem includes Glacier Park, Bob Marshall Wilderness, and associated areas.

Occupied habitat within the Yellowstone ecosystem contains about 8,800 square miles. Of this 8,800 square miles, approximately 2,000 square miles is the park. So you can see the park is less than half of the occupied habitat in the Yellowstone System. This occupied habitat covers the States of Wyoming, Idaho, and Montana. The Yellowstone grizzly bear population is isolated and has probably been so since the 1920's. Most of the Yellowstone ecosystem is in wilderness status, and less than 1 percent of it is in private ownership. This small area of private ownership is the source of a great number of bear/human management problems. Thus, the private ownership comprises only 1 percent of the area, and yet has been responsible for 27 percent of the bear/human problems from 1975 to 1982.

The long-term trend of the grizzly bear population in the Yellowstone ecosystem has been down from 1959 to 1982, in large part due to human-induced mortality from poaching, mistaken-identity killings, and removal of bears that come into contact with people.

The recent apparent distribution changes of grizzly bears in the ecosystem have led to conflicting interpretations of the status of the population.

Beginning in the late 1800's with the establishment of Yellowstone park, grizzly bears were fed garbage. This garbage feeding was most organized within the Yellowstone Park itself; and watch-

ing grizzly bears at garbage and feeding sites was a popular part of the agenda of the park visitor. With an increasing numbers of people coming to the park, increasing amounts of garbage were available for the bear. Open-pit garbage dumps became centers of activity for a large portion of the grizzly bear population in the Yellowstone ecosystem through the period of highest human use in July and August of each year. It is important to remember that there were many bears in the campgrounds and camps in and around the park when the dumps were in operation. The dumps did not keep bears out of human conflict situations; and, in fact, conditioned bears to human foods.

With the removal of the open-pit garbage dumps in the early 1970's, the distribution of the grizzly bears in the Yellowstone ecosystem became much less concentrated at certain sites within the park. This dispersal apparently took a long period of time, and even today there are grizzly bears which return to the Trout Creek garbage dump site to dig in the sanitized soil, more than 12 years after the closure of this area. We suspect that the current distribution of grizzly bears within the Yellowstone ecosystem more closely approximates the normal distribution of bears within this habitat which existed prior to the extensive dispersal of garbage throughout the ecosystem.

Most of the grizzlies which have been radio-tracked in the Yellowstone ecosystem since 1974 have at one time or another in their lives moved back and forth across the park boundary. Thus, the natural distribution of the grizzly bear in the Yellowstone ecosystem is dependent upon the coordinated management of the entire area, with the benefit of the bear in mind. The grizzly cannot exist if Yellowstone Park is the only area managed for the benefit of the bear.

The goal of the grizzly bear recovery effort is the establishment of a viable self-sustaining population within each of the six ecosystems that remain in the lower 48 States. A viable self-sustaining grizzly bear population in the Yellowstone ecosystem will exist only when these animals are able to use the seasonal foods that exist within the entire ecosystem. The intensive research in the Yellowstone ecosystem has given us reason to believe that the grizzly bear population can exist in a viable self-sustaining manner within the currently available habitat using natural foods and the natural habitats within the ecosystem.

Current management actions initiated since 1982 are designed to minimize conflicts between bears and people, and therefore minimize mortalities to bears. Some of these managment actions include:

No. 1, the modification of the black bear season within the State of Wyoming to prevent accidental killing of grizzly bears by black bear hunters.

No. 2, the U.S. Forest Service has improved law enforcement tactics and techniques on Forest Service land.

No. 3, there is coordination between all law enforcement agencies with the Yellowstone ecosystem to improve contacts with the back country user and to minimize grizzly mortality.

No. 4, there is a rewriting of Forest Service regulations concerning back country use in the area surrounding the park.

No. 5, there is a limitation of human distrubance within seasonally important habitats within portions of Yellowstone National Park.

No. 6, there has been a development of a Yellowstone ecosystem information and education effort to get the word to the user of the Yellowstone area that Yellowstone is a special place because the grizzly lives there; and because of this, you must behave in a special manner when you enter the Yellowstone ecosystem so that the bear may be preserved.

And No. 7, there is an increase in coordination and cooperation between all management agencies in order to maximize the protection of the grizzly while at the same time providing recreation and access to the Yellowstone ecosystem for the general public.

That concludes my testimony. I would welcome any questions.

Senator SIMPSON. Thank you so much.

Did any of you have any particular statement you wanted to make?

Mr. RUPP. I have a prepared statement, Senator.

Senator SIMPSON. Would you like to present that now, Mr. Rupp?

STATEMENT OF CRAIG W. RUPP, REGIONAL FORESTER, ROCKY MOUNTAIN REGION, U.S. FOREST SERVICE

Mr. RUPP. Senator Simpson, it's a privilege and a pleasure to see you again. And Senator Chafee, it's a pleasure to meet you.

I am Craig Rupp, the regional forester of the Rocky Mountain region of the U.S. Forest Service.

We appreciate the opportunity to appear before the committee to present the information regarding Forest Service programs for the management of the grizzly bear and its habitat.

Effective wildlife habitat management on National Forest System lands has always been an important part of Forest Service land management activities. The 1970's brought about increased concern and management of threatened and endangered wildlife species with the passage of the Endangered Species Act.

Recently the public has been expressing concern over the status and future of the grizzly bear, particularly in Montana, Idaho, and Wyoming. Many information sources portray a dark future for the grizzlies, but others of us are more optimistic and feel that action programs can effectively secure a future for the bear. The Forest Service has been actively involved in the management of grizzly habitat for a number of years, and had a major role in developing the 1982 recovery plan. We are currently increasing public awareness and visibility of these programs through contacts with the media and public participation in our land management planning process.

Forest Service management efforts related to grizzly bear have been in three major areas. First, long-range management direction is being developed as a part of the forest land mangement planning process currently under way. Planning efforts are also aimed at assuring close coordination between the various units of the Forest Service and between other State and Federal agencies involved in grizzly bear management. Second, protection of habitat essential for recovery and direct habitat improvement projects are planned

and coordinated with other resource activities. Finally, a major effort is under way to reduce man-caused grizzly bear mortalities.

All national forests involved in grizzly bear habitat management are implementing the Yellowstone grizzly bear guidelines. These guidelines were developed by the Forest Service, with active involvement of other cooperating agencies. They provide management guidelines to maintain and improve habitat, minimize grizzly/human conflict potential, and resolve identified conflicts. Efforts to apply the Yellowstone guidelines to a larger geographic area identified the need for a committee to oversee and coordinate research and management activities concerning the grizzly bear. In April 1983 the Interagency Grizzly Bear Committee was established by Assistant Secretary of Agriculture Crowell and Assistant Secretary of the Interior Arnett.

The National Forest Management Act of 1976 called for the completion of comprehensive land and resource management plans for each national forest by 1985. Forests involved in the management of the grizzly bear are currently developing long-range objectives and management direction for grizzly bear habitat as a part of their forest plan. This process assures coordination with the other resource activities of the forest, and will continue to build on the Yellowstone guidelines.

To improve our management of grizzly bear habitat and provide necessary data for the planning process outside the Yellowstone ecosystem, the Forest Service is currently involved in an intensive grizzly bear habitat inventory project. Information for the Yellowstone ecosystem has already been completed. This effort evaluates the condition of existing habitat, assists in determining grizzly bear habitat needs, and identifies habitat that must be protected to achieve recovery objectives. This data provides an essential base for evaluating the effects of proposed activities on bear recovery and for ongoing land management planning efforts.

In an effort to protect existing habitat, we are continuing to conduct a biological evaluation as a part of each activity or project to identify those activities which may adversely impact grizzly bear habitat. As a part of this process, the Forest Service has developed one of the few models available to evaluate cumulative impacts on the habitat of a species.

We have also reviewed our existing permit and contract clauses and stipulations, and determined that current language is sufficient, if amended, to include specific provisions for the protection of the grizzly bear. We intend to require special provisions for all future permitted activities.

The provisions basically provide for use of the National Forest System lands to be conducted so as to minimize or prevent confrontation between forest users and grizzly bears.

The number of direct habitat improvement projects has been limited. At the current time, much of our efforts are in inventory, planning, and managing our transportation system to control access to essential habitat and control use during certain times of the year. We expect more emphasis on habitat improvement projects in the near future.

Another major problem is preventing conflict between the grizzly bear and the general public user. The Shoshone National Forest is

currently taking the lead in determining the best method for limiting visitor use impacts on grizzly bear. In early July the forest issued a preliminary scoping statement to obtain public input to aid in determining the best methods for regulating such use. The objectives to be accomplished by the initiative are:

Provide a means for contact with users to convey information related to grizzly bears, wildland ethics, regulations, and so forth.

Produce more accurate and reliable data on the number of people using grizzly bear country.

Provide a means to direct overnight human use away from important grizzly use areas.

Develop a program which might be used now or later to regulate or limit human use in grizzly country.

Seven preliminary alternatives have been identified:

No. 1, continue current management with voluntary visitor registration at major wilderness trailheads, limited visitor contact, and seasonal vehicle access restrictions.

No. 2, implement a more aggressive visitor information and education program.

No. 3, alternative would be to implement seasonal closure restrictions of recreation use in specific areas with high potential for grizzly/human conflicts.

No. 4, require all back country users to complete a self-issue permit each time they enter the back country.

No. 5, require an annual Forest Service issued permit for all back counrty overnight users.

No. 6, require individual trip permits issued by the Forest Service for all overnight and back country users.

And, of course, the last alternative would be some combination of the above alternatives.

One effort being initiated this year is an intensive public contact effort by law enforcement personnel from all cooperating State and Federal agencies. The purpose of this contact is education of various forest users and the prevention of the man-caused mortalities that might have otherwise occurred.

As we implement more aggressive management, require permits for back country use, and take special precautions to prevent confrontation with the grizzly bear, we can expect some public opposition. However, if we are to protect the public and achieve recovery of the grizzly bear, we must require Forest users to conduct themselves in specific ways when they are in grizzly bear habitat.

This concludes my prepared statement. And I'd be glad to take questions also.

Senator SIMPSON. Thank you very much, Craig.

Anyone else of this panel wish to make a statement?

If not, we'll proceed with some questions.

If I could, Bob, ask you: Could you described to us the type of supplemental feeding program that John Townsley had in mind and was considering on this issue?

Mr. BARBEE. Well, Senator, I don't think I can relate specifically to John's thoughts. Of course, I didn't have the opportunity personally to discuss it with him. I have talked with others who did. I think, and I believe that John, when he alluded to supplementary feeding, did so in a way which was, as in many things that he did,

a visionary kind of way that at some future time, as a last resort, if it should ever become necessary, that that was an option to consider. But I don't believe that John Townsley ever actively was considering a supplementary feeding program or advocating one as an immediate remedy to the situation at hand.

Senator SIMPSON. Could you just give us a bit more information as to the bear control actions and kills in Yellowstone, beginning with the closing of the Park dumps to the present?

I know there's a great deal of written information on that.

I guess I would also ask: Why did the Park Service choose to rapidly close the dumps a second time, when there was precedent that showed a high bear mortality might result?

Mr. BARBEE. With your permission, I think we have today with us Mr. Gary Brown, who, among other things, heads up our bear management program in Yellowstone, and is familiar with some of those details. I would like Gary to respond for our organization.

Senator SIMPSON. Thank you very much. Please.

Mr. BROWN. Senator, in reference to the question about why the National Park Service chose to close the dumps——

Senator SIMPSON. Rather rapidly.

Mr. BROWN. Rapidly. The feeling was—and I'm speaking not from personal firsthand experience or knowledge of it, but in dealing with some other people. I was not in the park at that time. It was felt that a delayed and phasing out of the dumps would result in actually more bear mortalities than if we were to close them in an abrupt manner. The reason for this being that bears are very readily and easily linked or habituated to human foods and dumps and learn very quickly that that's how they can get food. It was felt that each year that you prolonged the closing of the dumps, that additional bears would be habituated or linke to those dumps. In the long run, you would have more bears who would have to eventually be destroyed because of this linkage and close confrontation with human beings.

Senator SIMPSON. Do you agree with the concept that Yellowstone Park should afford the grizzly bear a very special degree of protection?

Mr. BROWN. Yes, I do.

Senator SIMPSON. And you mentioned that the dumps conditioned the bears to seek "human food." Even if the dumps were not there, would not the grizzly bears still seek some human food because of their very nature of being?

Mr. BROWN. They do not seem to. If the food is not available to them, a source of food limked to human beings, then they do not seek this source. They're going to seek the available source of food. And that's one of our major aspects of our program at this time is to eliminate and prevent bears from obtaining this unnatural source of food, be it human food or garbage. And in doing this, they do not become linked and they be remain away from the developed areas.

Senator SIMPSON. I have several other questions. I'll submit those in writing. I don't want to intrude on Senator Chafee's questions that he might have. But let me ask a couple of questions.

The scoping statement is something I had read before, with regard to visitor use limitations, permitting, and so on. Doesn't the

Forest Service find that more grizzly bear/human conflicts are occuring on forest land since the closing of the dumps in Yellowstone?

Mr. WOOD. I would say that several people around the Forest, Senator Simpson, have told us that they've seen more bears in recent years, yes.

Senator SIMPSON. Well, what types of human/bear conflicts are occuring on the multiple-use Forest lands?

Mr. WOOD. The same things, the bears coming into camps. Recently, bears coming down through the resorts and the North Fork; those are the folks that I specifically refer to when I say that some of those have not had problems in the past that are seeing problems recently.

Senator SIMPSON. How much identifiable and premium grizzly bear habitat exists in the Shoshone National Forest?

Mr. WOOD. I can't quote the number of acres. We've got the map in our scoping statement that shows situation one and two. And it's a considerable portion of the north part of the Forest.

Senator SIMPSON. And how about the original designation of critical habitat? I remember living right here in Cody when that first came to passs, there was some though that that was at best simply an arbitrary decision, not really related to scientific evidence. What's your though on that one?

Mr. WOOD. Well, my knowledge of critical habitat is that that's what's in the Endangered Species Act and its's designated by the Fish and Wildlife Service. In lieu of that, and the fact that that was never done, the Forest Service prepared the guidelines that Mr. Rupp alluded to, and we talked to situation one, which we called essential; and situation two, which was not essential, but very important grizzly habitat, in lieu of calling it critical.

So we're speaking in terms of essential and situation one and two grizzly habitat in our scoping statements.

Senator SIMPSON. Just a couple questions now, then, of Mr. Servheen and Galen again.

The Interagency Grizzly Bear Study came along with several other credible groups opposed the listing of the grizzly as a threatened species. Why was that?

Mr. SERVHEEN. The Interagency Grizzly Bear Study team opposed that? I wasn't aware of that, Senator.

Senator SIMPSON. The original committee.

Mr. SERVHEEN. I am not sure. Probably, I would assume that what they were saying was that there was not sufficient information to indicate that the population was possibly going to go extinct in the near future. Maybe that's why they did it. I wasn't aware that that was the case.

Senator SIMPSON. This was back in the original effort.

But you have been quoted—and you certainly have an extraordinary reputation in this area as a person to be heard. You've been quoted as saying that the grizzly population is now reflecting a natural level. Could not it also be said that the population that existed from the late 1800's and while the dumps were open was also a natural population?

Mr. SERVHEEN. The reason that that statement has been made, Senator, is because we have a task force, by the way, that's looking into the idea of supplemental feeding.

Senator SIMPSON. What do you think about it?

Mr. SERVHEEN. Supplemental feeding?

Senator SIMPSON. Yes.

Mr. SERVHEEN. Let me outline the task force a little bit for you. We have 83 people on this, as well as outside experts. John Craighead is on the task force.

What we are looking at is two possible reasons for the use of supplemental feeding. One would be to draw bears away from human-conflict cases, perhaps small placement of baits here and there to draw them out of townsites, or campsites, or something like that. And the second way that supplemental feeding could be implemented would be to increase the nutritional status of the entire population.

And we've looked at the costs and the benefits involved in both of these and the probabilities of success in both of these. Our report is not yet complete. We have met twice, and I suspect that it will be completed as soon as John Craighead returns from Alaska, we'll sit down one more time.

But it appears that increasing the nutritional status of the population in order to increase reproductive rate or aid to first reproduction would be extremely difficult to do. It would require several thousand tons of food per year to supply all the bears. It doesn't appear to be feasable at all.

The movement of bears away from certain problem areas with the use of supplemental foods has been tried on a limited basis, and has received very little success so far. The bears often do not want to respond to the things we put out for them to keep them away from food.

So, that particular aspect of supplemental feeding, we'd like to look at it in the future, perhaps with some more limited experimentation. You see, if we could pull them out of areas—let's say bears come down here and get into apple orchards, or something like that, could we provide some kind of food in the back country where they would not come in, we'd like to try that further.

So that's basically what we're looking at with our committee. And, of course, we will have a full report which will be available sometime in the later summer.

Senator SIMPSON. All right. I might note for the record that that interagency group committee's recommendation, that has not been classified as endangered or threatened was an action taken in 1975.

But that's an interesting thing. I would appreciate, for the record, to go back through it, if you could determine why that was done at that time, and the names of those who voted and the vote that they cast. I would appreciate that.

Mr. SERVHEEN. OK. Would you like to be provided that?

Senator SIMPSON. Yes, for the record.

And then here's the one that is curious to me, and to those of us who have lived here for so long. Why are parts of the Shoshone Forest—I know that areas of Wyoming are considered to be critical habitat while hunting is still allowed in Montana?

Mr. SERVHEEN. Well, we don't have any critical habitats for the grizzly bear, Senator, in the lower 48 States. It has not been designated as such for the grizzly bear.

Senator SIMPSON. None?

Mr. SERVHEEN. None. No. critical habitats. Instead, within the Yellowstone ecosystem we have the Yellowstone management guidelines, where the habitat is segregated into three specific types of management stratification. Situation one is area which are important to the survival of the bear, in which any resource action which takes place in situation one, if it will hinder the future of the bear, it will not take place. Situation 2 is also areas which are important to the survival of the bear, but are considered less important than situation 1 areas. And situation 3 area is where we do not want to have bears. Those are places like townsites and campgrounds within the ecosystem.

And that has essentially replaced the critical habitat designation for the grizzly.

Senator SIMPSON. Well, reagardless of categorization, it still is a puzzle as to why one State within the range would have hunting and the other would not.

Mr. SERVHEEN. The hunting is now allowed within the northern Continental Divide ecosystem in Montana. And that hunting is limited to a quota of 25 bears, which can be killed from all causes each year. Hunters take an average of about 10 bears per year out of that. The success rate is very low for hunting.

The reason that hunting takes places, there is interest in maintaining the interest of the sportsman in the welfare of the bear. And it was felt when the bear was declared a threatened species in 1975 that it was important to maintain some type of sport hunt in this particualr area, because that particular ecosystem has the largest known grizzly bear population in the lower 48; and yet to limit that hunt to a fairly manageable, small number of bears which were taken each year. But there is, of course, no hunting in Yellowstone ecosystem, and has not been since 1975.

Senator SIMPSON. Thank you. Sorry to take so long.

Senator CHAFEE. No, no. This is a very interesting panel. This panel has seemed to have the capability to answer many of the questions that we have.

The point that Mr. Servheen made was that you need coordinated management of the entire Yellowstone ecosystem. In other words, you pointed out, I believe, that the park itself is only one-half of the total system. Is that taking place now?

Mr. SERVHEEN. I believe that we are making vast progress in that, Senator.

Senator CHAFEE. I mean, Mr. Rupp seemed to indicate that there was a coordinated plan.

Well, what do you say to that, Mr. Barbee? Is there a coordinated plan for the whole system?

Mr. BARBEE. Well, there's certainly a coordinated effort for the entire system, and one that's been recently been reorganized and has a stimulant from that, as well as commitment from all the varius agencies. We have a canopy group, which consists of the regional foresters and the major decisionmakers. We have the local managers, the national park managers, national forest managers,

and then there's a research team—I'm not quite sure I'm responsive to your question.

Senator CHAFEE. I agree with the point that Mr. Servheen made here, that it seems to make sense that in order that the grizzly is going to be preserved that a coordinated management of the entire ecosystem, which includes far more than the park, has to take place. Yet, here you're under Interior, and you're under Agriculture, and will the efforts of twain ever meet?

Mr. BARBEE. The mechanisms are in place, and we're all committed to this. And I believe that we're going to be able to accomplish it. You might also include in that list the States of Idaho, Montana, and Wyoming, who have representatives. And we're confident that we can—while there are differences, obviously—that we can work together toward this end.

Senator CHAFEE. Well, what happens when somebody in the Park Service decides they'll build this Grant Village, which seems to have met with some opposition here? Is that part of the overall plan to preserve the grizzly? Or was that taken into account? I'm not throwing this in your lap, because it probably didn't happen on your watch.

But Mr. Barlow gave some pretty tough testimony on that, it seemed to me, as I undertood it and what I've read in the articles by Mr. Chase, that this is kind of prime grizzly area and, bang, you construct a project there. I haven't seen it, and I don't know what it looks like. Does it look like downtown Cody that you're building there?

Mr. BARBEE. Well, I'm glad, Senator, that you pointed up the notion that it wasn't conceived on my watch.

It was conceived as early as 1935. So all of us who come into a management situation arrive at some point along the continuum. In this case, the continuum extended for nearly 50 years. The notion of Grant Village, its inception, was not one which was related to the grizzly bear, but more to the redistribution of people, moving facilities, support facilities as well as visitor accommodations away from the prime features of the park, and allowing an area to be developed which was of lesser importance, resourcewise. Somewhat later in the game, after Grant Village was well underway, the grizzly habitat concern was surfaced.

Now, there's no doubt about it, there are spawning streams there. Grant Village does occupy an area which is utilized by grizzly bears. At the same time, there are tradeoffs. In addition to moving away from the prime features of the park, it allows us to do such things as to remove campgrounds and other facilities from even more prime grizzly habitat; for instance, in the Fishing Bridge area, which is now intensively developed. So Grant Village allows us to bleed things away from those kinds of areas. It doesn't really look like downtown Cody. It is a developed area, and there are facilities there. And the momentum has been underway for quite some time.

Senator CHAFEE. Well, I know how these things get started and roll along. But I guess my real question is: If you had it to do over again—this is putting you on the spot—is this where you'd choose to build Grant Village?

Mr. BARBEE. Now, you certainly did put me on the spot.

I'm still within my 6-month honeymoon period, and I really haven't speculated on that option, because the option doesn't exist.

Senator CHAFEE. All right. Cancel that question.

Well, for somebody who isn't entirely familiar with the situation, it does seem that it wasn't the best place to choose, if those indeed were the spawning streams where the grizzlies did their fishing.

One of the earlier witnesses mentioned some ranch that is a privately held ranch in the middle of what, the forest area? Was that the Shoshone?

Mr. RUDD. It's on the Targhee National Forest, I believe. It's not in this region. I'm not familiar with it.

Senator CHAFEE. Was that not mentioned in this panel?

Mr. KNODER. There's a gentleman here from the Forest Service who is very eminently familiar with the status of the Squirrel Meadows Ranch in the Targhee.

Senator CHAFEE. OK. Well, I guess that's a separate subject.

Could you discuss a little bit anybody in the panel volunteer, about the law enforcement activities? Do you see results with the Audubon Society's reward system? And are we catching the poachers?

It seems to me that the one variable that we can control in here is the man-killing of the grizzly, the reduction that comes as a result of that. Are we making any progress?

Mr. BUTERBAUGH. Yes, Senator, we are. We certainly agree with you, this is one area where we can probably do the most, the quickest.

The funding provided by Audubon to the Fish and Wildlife Service for rewards to information leading to the conviction of somebody killing a grizzly bear has been very helpful already. And I'm not going to talk very much about it, except to say that it has been instrumental in leading to some convictions. And it is being used at the present. I forget now how many cases—I, unfortunately, didn't bring that information with me. In the past year I believe we had six cases. We are getting better cooperation from the U.S. attorney's office. In all of these cases that have been tried, they have been tried in the State court.

There is a mechanism where the Federal prosecutors and the State people get together and decide in which court these cases will be tried. And they've been tried in State court; and we've been getting good convictions, and we're satisfied with the status of things in the court system, the prosecutions at the present time.

Senator CHAFEE. So therefore, they're not using the Lacy Act, which we thought was a pretty powerful tool we gave you?

Mr. BUTERBAUGH. It's still a powerful tool, right there behind, waiting to be used if needed. And so far, we haven't needed it in the last year, since the amendment.

Senator CHAFEE. Let me ask the panel a question. The statements that have been made by some of the previous witnesses, and indeed in the writings that we've read, have indicated that the number of grizzlies in the Yellowstone ecosystem is at the peril point; it's extremely low, and going lower. What is the reaction of the panel to that.

Let's take Mr. Brown.

Mr. BROWN. Well, I was going to defer to Mr. Servheen.

Senator CHAFEE. All right. Well, let's take Mr. Servheen.

Mr. BROWN. He's been working quite closely with the statistics and the population trend.

Senator CHAFEE. What do you say to that?

Mr. SERVHEEN. Well, Senator, there has, as you say, been much controversy about the number of bears that exists in the ecosystem, and whether they are going to disappear in the next few years or not.

We impaneled a group in January of this year to review all the available data to make an estimate on population size and trend in the Yellowstone ecosystem because of this concern. And once again, there were two outside experts on that group. And we looked at the population trend, and we were able to determine that there has been a significant downward trend in the number of females with cubs in the ecosystem since 1959.

Now, it is a gradual trend—I will stress that word, gradual—but it has been declining.

In terms of numbers of bears, we feel confident that there are between 187—or 183 and 207 bears alive in the ecosystem. And that's based on bears that we have seen. And we feel confident that that's a minimum. There are more bears out there than that. So that gives us a number to deal with and a trend.

This trend indicates that we must be very concerned about the future of the grizzly bear. But the gradualness of the trend and the fact that the population is approximately 200 animals, as a minimum, leads us to believe that we're not going to lose the bear in the next 5 to 10 years. It's not going to go over the hill rapidly. But we are very concerned that in the future, perhaps the next 20 to 30 years, if conditions continue as they are and resource demands continue in this Yellowstone ecosystem, that we may see the demise of the bear. And that has certainly enlightened a lot of us to be very careful about our management decisions. And you see the agencies at this table taking a very strong stand regarding the survival of the grizzly bear.

Senator CHAFEE. Do you think that what is now taking place and the activities of the different agencies and so forth are adequate to reverse this trend?

Senator SERVHEEN. I believe, Senator, that we are doing almost as much as we can. The things that Craig Rupp mentioned, what the Forest Service is doing, the Park Service. We are dealing within the Yellowstone ecosystem with the survival of individual animals. We are spending a lot of money and a lot of time trying to assure the survival of individuals by being very careful when they come into conflict with people, to move them, provide them with alternative foods. We do everything we can to provide that we have no mortalities in the ecosystem at all. And you see a tremendous amount of effort going into preserving individual animals.

So we're concerned about each one we have. We are instituting right now, the interagency study team is looking into developing a method to monitor the trend of the population even more carefully. That's all they're doing this year. And by using this trend monitoring method on an annual basis, we will be able to either validate our management activities to see whether we're seeing some response in the bear population; or if we're not seeing a response in

the bear population, then we need to do more. And we don't want to be caught whistling in the dark and have the bear go over the hill, and we think we're doing OK. We want to be very carefully monitoring our efforts in the future.

Senator CHAFEE. What would lead to the very low reproductive rate, as I read it, of the female grizzlies? Why aren't they producing to the degree that they have in the past, or that records show in the past? In other words, it seems to be material I looked at, it was half a cub per year it works out to.

Mr. SERVHEEN. OK. That's an interesting point, Senator. The grizzly bear probably has the lowest reproductive rate of any land mammal in North America. It does, under natural conditions, have a very low reproductive rate. They breed on average every 3 years; the females bring forth young every 3 years. They don't breed until they're 5 or 6 years of age. And the average life span could be 15 or 20 years; so that the average female can't bring that many young into the population over her lifetime.

So under natural conditions, the animal has a very low reproductive rate.

When the dumps were in operation within the park, there was a higher average litter size in the animals that were seen. The litter size was 2.2 young per female. Right now it's 1.9 young per family.

We feel very confident—and this is a question that Senator Simpson asked that I didn't get a chance to answer—that the influence of all that garbage on the population had probably a bit of an influence on the average litter size in the population, very small.

Senator CHAFEE. Raised it, in other words?

Mr. SERVHEEN. Raised it a small amount, right, because there was that much more food available for the animals. What we're seeing now is probably a much more natural distribution of litter size in the system. And it's not all that much different from what we see in other areas where there was never garbage available, such as the Bob Marshall ecosystem and places like that.

So, the low reproductive rate of the bear is something that the bear is saddled with; that's part of the biology of the animal. And that gives us another reason to be very, very careful about the survival of individual adult females.

Senator CHAFEE. What if you had a recommendation to us to be helpful in this area, what would it be?

Mr. SERVHEEN. To the committee?

Senator CHAFEE. Yes.

Mr. SERVHEEN. To be supportive of the agency efforts in management activities and research activities. And, as Craig Rupp said, when some of these things are undertaken, we may get some public response that is not wholeheartedly supportive. It may be difficult to do some of the things we need to do to save the bear, and yet maintain a lot of public support. And we would hope that we would be able to convince the public of the need to do these things, and have the support of the committee.

Senator CHAFEE. What do you say to that, Mr. Brown?

Mr. BROWN. I'm not sure I can add much more to that question, Senator, than what Mr., Dr. Servheen said. But the commitment of the public and helping the agencies and supporting the agencies I think is very critical and very necessary, because there will be un-

popular management decisions that are favorable for the bear, but will affect basically recreation use. And those are the things we need to be very careful with and very cautious with at this time. So there will be these impacts, and we do need that support.

Senator CHAFEE. I take it that Mr. Rupp understated the problem when he daid that he expected some difficulties and some resentment when they curtailed, in his suggestions dealing with the curtailment of hiking and camping and checking out and checking in and all that? Is that your feeling, you're going to stir up a storm when you do that?

Mr. RUPP. A hornet's nest?

Senator CHAFEE. Yes.

Mr. RUPP. Yes. The responses that we have received to date, the scoping session—and incidentally, for the audience here, I would certainly encourage them to provide us with responses to that scoping statement. They have been rather slow coming in. Those responses that we have got bascially point to the desire to have no change over what we have had in the past. And there is some support, some limited support, for permit systems. And there is some indication that some of the people that are opposed to changing anything are very sincere in their position that they're not interested in the survival of the bear. They really don't care if the bear survives or not.

Now that, as I say, is a very sincere position on some people's part.

So if we intend the bear to survive, and if we follow through with that, with the alternatives or some of the alternatives that we are proposing in that scoping statement, there is going to be opposition, serious opposition.

And, yet, if the bear is to survive—and under the Endangered Species Act, I don't think we have any choice but to work for the survival of the bear—then those conflicting uses are going to have to be resolved within the favor of the bear. That isn't going to be easy to take. We are not just dealing with recreation; in some cases, we are dealing with people's livelihood. And we recognize that. We understand that. And we'll do everything we can to mitigate those types of impacts, where it's at all possible.

Senator CHAFEE. Well, I think you're correct in your statement that the decision has been made by Congress that the survival of the bear is of importance. And you mentioned the Endangered Species Act. That was just reauthorized, and indeed strengthened, last year.

Mr. RUPP. That's great.

Senator CHAFEE. It was by unanimous vote, wasn't it?

By unanimous vote of the Senate. And I can't speak for the House, but I suspect the House likewise.

So, you made a good summary of it. As far as Congress is concerned, the decision has been made.

But I think, obviously, your point about people's livelihood, we do appreciate. And we try to mitigate the difficulties involved with that to the greatest extent possible.

Senator SIMPSON. Thank you, John.

John, I think you'd be amazed—and I don't know the figures, perhaps we can get it right now—how much of Yellowstone is accessible to human use.

Mr. BARBEE. Sir, do you mean how much do we have now in some sort of a restrictive--

Senator SIMPSON. How much of Yellowstone is available for human use?

Senator CHAFEE. For hikers——

Senator SIMPSON. Hikers and——

Senator CHAFEE. Even the most hearty hikers——

Senator SIMPSON [continuing]. Back-packers, Old Faithful, the whole works.

Mr. BARBEE. The developed area of the park, including the roads and all the developed sites, comprises approximately 0.67 percent of the entire park. So than less than 1 percent of Yellowstone is developed for intensive use. Of course, the trail system, we have about 1,100 miles of trails that lead into the back country. And as far as the measures that we've taken to reduce the conflict between man and bear, we have approximately 18 percent of Yellowstone in some form of restricted use, whether it be temporary or on a more permanent basis. It adds up to about 18 percent.

Senator CHAFEE. Let me ask Galen one quick question, if I might. Is the reward system that comes from the Audubon Society the only type of reward system that you have? In other words, does the U.S. Government sponsor rewards itself; or do you always have to use outside, privately raised funds?

Mr. BUTERBAUGH. No, we have had the capability internally also to undercover operations, to handle rewards. But this is a little different, has more visibility, and it has done far more good than the undercover operations we had because it's been far more widely disseminated, the information on it. And it frees up the money that we would have had to use for other purposes, other types of law enforcement.

Senator CHAFEE. OK. And one final question to Mr. Barbee.

Does the *Harry Walker* tort case that was against the Park Service some years ago, is that always a Sword of Damocles hanging over your head? Is that constantly causing you concern in connection with the bear activities, for example?

Mr. BARBEE. Of course, we're concerned about visitors. We haven't talked much about that aspect of the programs, the problem with the people encountering bears and becoming mauled and so on. It always is a concern to us. And I think part of our program of restrictions in Yellowstone reflects that concern. We're naturally, as a fundamental premise for our activities, we're concerned about the perpetuation of the bear. But part and parcel of that, of course, is our concern for the safety of the visitor. And our program reflects that.

Senator CHAFEE. I was looking at it a little bit further than that. Indeed, of course you are concerned with the safety of our visitors. But visitors can be rather foolish sometimes. I say it judging from the picture in the local newspaper today of somebody going out there and petting a buffalo with his wife taking a picture nearby. She got a pretty good picture of it.

Did you see that?

Senator SIMPSON. Yes.

Senator CHAFEE. But then the courts come in and say it's not their fault, it's your fault. You shouldn't have wild animals around.

So that, I assume, is always a cause for concern.

Mr. BARBEE. It certainly is. And we're in a continuous quest for better and more effective educational programs so that we can reach those people who, I think, are oftentimes simply insulated from the wildlands, from the hinterlands. I've seen this happen continuously since I've been in Yellowstone, primarily with the bison, but they do approach wild animals. We warn them at every conceivable point that we can. We're accused occasionally of overkill. In the campgrounds there are explicit warnings. Every individual in every campsite is contacted at least once verbally. The literature that's passed out, and seems to be so ubiquitous everywhere, in the restrooms and all the bulletin boards, keeps reinforcing this point. We're not satisfied that we're doing the best job that we can. We're looking for more effective ways to communicate that concern.

Senator SIMPSON. Thank you, Mr. Barbee.

You have opened communication with the Craigheads and others, I admire that, it is so important. I appreciate what you're doing in that area, and, indeed, the public is needed in this process, who, at times in the past, were not included in the process. I hope that they can be very much a part of it. I see some good things coming.

Thank you so much, all of you.

The next panel, please. Tommy Thompson and Bill Vanhekamp, outfitters; Marshall Dominick, lodge owner; and Keith Dahlem, rancher and operator of recreational facilities.

I want each of you witnesses to say absolutely nothing about my past history; looking at you all, knowing every one of you. Just keep that to a very light minimum.

OK. I'm anxious to hear your thoughts.

Tommy, do you want to start? Do you have any prepared statements or do you want to just summarize? Whatever, then we can get into some questions of you?

STATEMENT OF TOMMY THOMPSON

Mr. THOMPSON. I don't have anything prepared, Senator. I'm coming at you from a different point.

As 49 years in the mountains and about 6 months out of the year should give me a little bit of experience. And I've had probably as much trouble with the grizzly bear as anybody; and I've never had to kill one yet, and hope I never will. I've had my camp tore down several times as an outfitter. I've had it tore down as just a John Q. Public, going through there on my own. And I have got to believe that if we have trouble with a grizzly bear in one area, picking him up and putting him in another area where people are going to be is not going to cure the grizzly bear from getting in somebody else's camp.

We should have some kind of a grizzly bear—in my estimation, and I'm not an authority on it in anyway—but you should have some kind of a troubled bear permit. That if a bear gives people in

one area pretty much, and continuously, why not let some sportsman have a license to kill that bear, instead of somebody wasting it and leaving it lay? The bear is going to eventually get killed anyway. Somebody is going to kill the bear. And when you look at one of those bears at 10 feet in the face and try to stare him down with your daughter standing besides you—I'll tell you when the bear leaves, which he did, you're ready to jump in the creek and take a bath and change your clothes.

I'm a firm believer that we should have some control over that some way. And I think it could be done.

Another thing is, we have got grizzly bear now where we have never had him. They've been spread out all over the country. I don't think any more habitat is going to do us any good, because they're outside of the habitat now; and they're going to just keep going. As long as we have this much activity in the mountains as we have with seismographing and so on and so forth, you're just driving them lower. They're going to be in the city park in 5 years.

We've got more grizzly bear—I agree—I've worked with the game and fish, I've worked with the interagency team. And we've got grizzly bear—as the gentleman said, they counted 180 some, and I would say they saw half of them. I would just like to see some way that we could work out something with somebody to control the bad bears. Because if he's bad in Yellowstone, that isn't going to do any good to send him out here, because he's going to be bad at Keith Dahlem's or he's going to be bad somewhere else.

So that's all I have to say. I think some of the other fellows here have got considerable more. I'll let somebody else talk.

Senator SIMPSON. Thank you, Tommy, very much.

Bill, please.

STATEMENT OF BILL VANHEKAMP, CODY OUTFITTERS & GUIDES ASSOCIATION

Mr. VANHEKAMP. My name is Bill Vanhekamp, and I represent the Cody Outfitters & Guides Association, and the grizzly bear.

I have guided in and lived around Park County since 1946, and have outfitted for some 37 years and lived in grizzly country.

Prior to 1967 there were very few grizzly/human conflicts, either in Yellowstone or in the area surrounding Yellowstone Park. Also from 1873 through 1966, according to the records, there were only three human fatalities in all national parks in North America by grizzly bears.

There has always been garbage available in the park since it has been a park. And as visitors increased, so did the garbage. The grizzly bears congregated around this available food supply. Their reproductive rate was much better. They stayed away from campgrounds. There was less human/grizzly conflicts than there is now, and there were many more grizzlies; and records prove this.

If you remember, we really did not have a grizzly problem until the garbage was no longer available; and we still had a viable population. The grizzlies were not declared a threatened species until May 25, 1975. That was after the Park Rangers had killed some 200 grizzlies—and Lord knows how many black bears, as there was no records kept on them.

The only reason grizzly bears are leaving the park as they are now is for the need of food. Most biologists that I have talked to tell me there is not enough available food in the Yellowstone ecosystem to sustain 301 bears. And this is what the Fish and Wildlife people tell us is going to be a viable population.

We do not believe the permit system will work or is necessary. The back country is not where the problems are. The Forest Service cannot catch the illegal outfitters now at the present time; so how are they going to do anything about the general public? They cannot enforce the permit system.

The public needs more education about clean camps and traveling in grizzly country and what to do when confronting a grizzly.

I am certainly surprised that we have all of the seismograph activity and a proposal to drill an oil well in the North and South Forks of the Shoshone River when grizzly bears are a threatened species, and the grizzly frequents all of these areas. In fact, a grizzly just mauled and killed a gentleman by the name of William May on the west side of the park. It actually denned on Rattlesnake Mountain during the winter, within 5 miles of Cody. These people get permits—the seismographers or the oil well people—for this kind of activity. And the Forest Service tells the outfitter he can't go into an area that he hasn't used in the past because they do not want to put any more pressure on the bear. Their policies are not consistent.

Another thought that might be worthwhile to consider: We have taken another major supply of food away from the grizzly when we stopped baiting for black bear hunting.

The Forest Service tells me that they had 78 bait stations in the Shoshone Forest. If each one is used once each year, that would amount to about 78,000 pounds of food, figuring each horse averages 1,000 pounds. I am not sure if it is right or wrong. I know each year there are bears killed because of mistaken identity. But which will be the greater: those killed by mistaken identity, or those killed by the Fish and Wildlife for so-called control measures.

I would suggest to you that trapping of the grizzly be discontinued. Dr. Jonkel recently said, and I quote——

Senator CHAFEE. Could you repeat that? I missed that part?

Mr. VANHEKAMP. Dr. Jonkel recently said——

Senator CHAFEE. No, just before that. You had a phrase that something be discontinued.

Mr. VANHEKAMP. Let me just go back here.

Senator CHAFEE. Trapping, was it?

Mr. VANHEKAMP. I know each year there are a great amount of bears killed because of mistaken identity. But which will be the greater: those killed by mistaken identity or by the Fish and Wildlife for so-called control measures.

I would suggest to you that trapping of the grizzly be discontinued. Dr. Jonkel recently said, quote:

> There is not any evidence to back up the theory that trapping causes the bear to be less afraid of humans; but on the other hand, there is no evidence to the contrary either.

My suggestion to this hearing is to:

No. 1, open up the pits in Yellowstone in areas away from people and campgrounds for edible garbage only, no trash.

No. 2, discontinue trapping and tranquilizing the bears except in emergencies.

No. 3, continue to monitor their movements and numbers.

Continue to educate people in regards to grizzlies and blacks.

I would suggest to you that Starker Leopold was wrong when he advised the Park Service to close the dumps in the park, and that the U.S. Fish and Wildlife and the Park Service are the contributors to the grizzly bear being on the threatened species list today.

Thank you for letting me express our views on this unpopular grizzly bear situation.

Senator SIMPSON. Thank you very much.

Marshall, please.

STATEMENT OF MARSHALL DOMINICK, 7 D RANCH PARTNERSHIP, SUNLIGHT BASIN, WY

Mr. DOMINICK. I'm the managing partner of the 7 D Ranch Partnership, and I've been asked to testify as to the effect of the grizzly bear on our ranching program.

Our ranch is located in Sunlight Basin, which is north of here in Wyoming. It's about 50 miles from Cody.

My family has owned and operated the 7 D Ranch as both a dude ranch and cattle ranch since 1958. We've successfully cohabited with the grizzly bear in Sunlight Basin for the last 25 years; and I see no reason why we should not continue to do so. My family has always had a healthy respect for the bear and his domain, and we would hate to see the grizzly bear driven to extinction in this area.

Since the time that my father purchased our ranch, we have maintained Forest Service grazing permits, which allow us to graze both cattle and horses on the Shoshone National Forest. These permits run from June through October. During the remainder or the year, we pasture our livestock and feed them on our private property.

In utilizing our permits, we have always run what is known as a cow-calf operation. That is, we maintain a herd of mother cows and run them with their calves on our permit through the summer and fall, then we ship the calf crop each year. Over the last 25 years, we have grazed our cows and calves, according to Forest Service regulations, on nearly all of the grazable land in Sunlight Basin. For at least two summers, we were allowed to graze in the upper, or western portion of Sunlight, which is currently designated as a critical grizzly bear habitat.

Anyway, this is a grizzly bear habitat area. And that is as far west as Galena Creek from Sunlight Creek. I know of no incident of predation on our cattle herd by grizzly or black bears during any of the last 25 years.

Secondly, we are dude ranchers and outfitters. And for the last 25 years my family has run summer pack trips and fall hunting trips into nearly all of the back country around and near our ranch. We have camped in Dead Indian Creek Drainage, Elk Creek, Gravel Bar Creek, Upper Sunlight, Little Sunlight, North and South Crandall Creeks, the Beartooth Plateau, the Lamar Valley

in Yellowstone Park, and the Upper North Fork of the Shoshone River. All of these areas are inhabitated by grizzly bears. Possible due to good luck, and certainly due to good camp management, we have never had any trouble from bears—with the exception of having our grazing horses scattered upon occasion.

Grizzlies have been sighted on and near our ranch property. I'll give three examples. We have a plaster cast of a grizzly footprint which was taken in about 1967. That cast was made on a muddy roadway about 50 feet—or less than 50 yards, I should say, from our main lodge. Last spring, or the spring of 1982, two grizzly bears were killed by a bear hunter in Gravel Bar Creek. These bears were killed illegally. The hunter claims that he thought they were black bears. And that creek where they were killed is about 2½ miles from the ranch.

This summer in July a group of hikers from our ranch sighted a grizzly in Little Sunlight Creek, about 3 miles from the ranch. Yet, we have never lost any livestock to grizzlies or suffered any property damage from grizzlies.

Last year we had at least three different black bears come into our dump. We have an open pit garbage dump on the ranch; and so this year we maintained a strict policy of daily incineration of all edible garbage. And to date, we know of no bear visitations to our dump. We intend to continue this program of strict dump maintenance at the ranch.

It's evident that the human usage of public lands in and around Sunlight Basis is on the increase. Simply stated: Each year more and more people come to this area to camp, hunt, and fish. It is my considered opinion that some restrictions must be placed on this recreational usage if a viable grizzly bear population is to be maintained. Therefore, I understand the rationale behind the recently imposed restrictions on Upper Sunlight Creek. And I applaud the Wyoming Game and Fish Department for their considerable efforts toward grizzly bear management. And I also applaud the U.S. Forest Service for their decision to restrict usage of Upper Sunlight. These agencies are attempting to make a reasonable approach toward bear habitat management. And I suggest that we would do well to go along with them at present in Sunlight.

However, I do not feel that further restrictions should be imposed in our area at this time. I would add to this that the road which is under restriction at this time in Upper Sunlight was a definite mistake; that the road improvements there should not have been made. But since they are there and have been made, the Forest Service is doing their best to take care of the situation as it stands.

To conclude, I hope that we can continue to cohabit with the grizzly bear in Sunlight basin and in the general Yellowstone ecosystem. I believe the current grizzly bear management program in our area should be kept in force and should be continued to be monitored.

Finally, I believe the grizzly bear and the relatively unpopulated country he inhabits are extremely valuable assets to our country and to our world. I believe we should do our damndest to preserve the fine balance of co-habitation by man and bear.

Thank you.

Senator. SIMPSON. Thank you very much, Marshall.
Keith, please, I'd like to have your views.
Mr. DAHLEM. Thank you, Senator.

STATEMENT OF KEITH DAHLEM, RANCHER

Mr. DAHLEM. I'm Keith Dahlem from Shoshone Lodge. We have a guest lodge which is just a few miles outside the east entrance to Yellowstone Part, 48 miles west of Cody. My grandfather started the lodge in 1924.

We had no grizzly bears at our lodge for the first 50 years that I can recall, until a few years ago when they moved out of the park. They came down early in the spring, in April. And we had a garbage can that didn't have any garbage in it. But then, they were there, for April 26 this year, was the last time we saw a grizzly bear.

But I think one of the reasons why the bears are there, they're starving. They're really hungry. And they came down, and we did have garbage outside the lodge like we've had for years. We used to have three or four black bears in our lodge every night, all summer long until they closed the dumps. We had a dump a half a mile away from us. And they closed the dumps in the late 1960's. And that pretty much eliminated the bears, because the bears started going to the campgrounds; and they weren't compatible with people in the campgrounds, so they destroyed the bears—that was the black bears.

The grizzly bear is a little bit different kind of creature than the black bear though. We tolerated the black bears at the lodge for years. The grizzly bear, they're really awesome. They're pretty scary to see them 18 inches away, looking in the window at you.

Senator CHAFEE. I guess so.

Mr. DAHLEM. Especially when they're 7 feet tall and weight about 700 pounds.

We had no trouble with the grizzly bear until last fall when there wasn't any garbage for them to pick up. We maintain the garbage inside the buildings and lock the dumpsters that we had. That's the time that the bears started tearing into the house and tearing into the back door and tearing into the front door and tearing down the pack sheds to get in to get anything he could get at; because I think they're literally starving, they're short of food supplies.

One thing, the reason why I think they are: There's not enough wildlife there like there used to be, because there's no winter habitat for the elk and stuff to graze at. We're losing all our wintertime—we've got plenty of summer grazing for the wildlife, but in the summertime there's more and more people built up, especially on the North Fork, there in the lower region where the elk used to graze. And there's just not as many elk herds, so they're losing the natural habitat. I don't know if the bears can live on berries and nuts and stuff all their life. I think they're more meat-eaters.

I don't think grizzlies and humans are real compatible. As long as they can't find supplemental food like the dump—at our place, we used to have to separate all our garbage. The wet garbage went to the dumps, and the paper garbage was all incinerated. I think

that was probably true for inside the park. Imagine with our operation where we have 50 guests a day, we probably generate 100 to 200 pounds of wet garbage a week that went to feed the bears. Now without this supply of food, that's really cut down on what they can eat.

So I think they're starving. And I think their numbers will probably dwindle, and they'll come in searching for food. They'll keep coming into the lodges searching for food, just because they can smell it. You know, they can smell it coming out of the vents in the roof, and that's just from the cooking; and they were coming in in the middle of the day. I think until they're supplemented with food or they're destroyed, we'll have trouble with grizzly bears.

Senator SIMPSON. Now, that doesn't happen in Rhode Island, does it?

Come right down through the roof?

Senator CHAFEE. I've never looked out a window and seen one looking me in the eye, I'll tell you that much.

Senator SIMPSON. You ought to see the size of that face, that's the worst part.

Well, thank you, Keith.

I have just a couple of questions. Let me ask each of you: What is your position or your thoughts about this supplementary feeding system within Yellowstone, as has been suggested? Do you have a thought on that, Keith? We'll start your way and go back.

Mr. DAHLEM. Which is that?

Senator SIMPSON. Within Yellowstone Park, some type of carrion, some type of managed feeding.

Mr. DAHLEM. It's too bad they can't separate the garbage at the big hotels and stuff like they used to and haul it to the dump; because that's the same kind of food that we eat, and it's pretty good for us, so it should be good for the bears. And, you know, the bears have lived on that for at least over 50 years, from 1925 on. I think that would be a good idea, if you want to keep the bears around.

Senator SIMPSON. It's funny, Teddy Roosevelt, I remember in one of his quotes, he said that not only have these animals come to realize they're safe, but being natural scavengers and foul feeders, they've come to recognize the garbage each of the hotels as their special sources of food supplies, and now have taken their place among the recognized sites of the park. And the tourists are as much interested in the bears as in the geysers. So said Teddy Roosevelt.

And, of course, that is a situation. If the dumps have been closed since 1967, and they're still looking for garbage from humans, then obviously they haven't had a taste for it that is just suddenly removed, they have a continuing taste for it; is that correct?

Mr. DAHLEM. It's just a food source. It doesn't matter if it was a dead deer or dead elk, it's still food and they can smell it.

Mr. DOMINICK. I would go along with Keith on that. I'm no bear biologist by any means, but I don't see why the dumps couldn't be reopened. And I think it would be simpler to reopen the dumps and far less expensive than to slaughter animals and drop them to the bears by helicopter.

Senator SIMPSON. Tommy?

Mr. THOMPSON. Well, Senators, I believe that that's a very good idea. It makes sense. We've got a lot of country in Yellowstone Park where, if we're only using 18 percent of it, what are we doing with the other 82 percent of it? We can surely make a bear dump somewhere up there and keep those bears around.

I can remember when I first came to this country in 1933, we would drive to the Canyon to watch them feed the bears. That was a big attraction. Everybody went there to watch them feed the bears. It possibly wouldn't have to be done that way at this time. Maybe they could keep the people away from the dumps, just have it off in some area where they could feed them. I think it's a great idea.

Senator SIMPSON. Bill?

Mr. VANHEKAMP. I've been advocating that for years. I think that's the only way they'll ever have to maintain a viable population is to open up the garbage dumps for edible foods only, not trash. I know that some of these bears will eat some of this—get tin in their stomachs and so forth. But if they'll open up the dumps for edible garbage only, I think they will get a viable population, if they don't—it's going to take 3 to 5 years to get them back in there again, in my opinion. I don't think they'll get them in there overnight. But if they don't do something soon, I think that—I'm very concerned about it.

Senator CHAFEE. I think your idea of the supplemental feeding makes a lot of sense, and I wish we had a chance to ask Mr. Barbee about that more, but we can correspond with him and get his views on that.

But Mr. Rupp indicated that in order to preserve the grizzly, that it would require restricting the access to some of the areas, greater than in the past. And he said this could possibly have an effect on people's livelihood. Now, I didn't get a chance to ask him specifically what he was thinking about. But would that affect you gentleman—I'm talking to the outfitters, particularly. Would that affect you in any way?

Mr. THOMPSON. I don't think that would affect us one bit as an outfitter, and it sure wouldn't affect us as John Q. Public; because if they establish their feed grounds in some desolate areas up there—they couldn't put it on Pelican Creek or someplace like that where a lot of people travel—but they have the opportunity and they have the place to put them. And I think that it wouldn't affect the outfitters one bit, and it would be the greatest thing that ever happened to the grizzly bear.

Senator CHAFEE. What would be?

Mr. THOMPSON. To put them in an area and restrict the people from it. Leave all the garbage there, and keep the people from it.

Senator CHAFEE. I wasn't so much talking about setting aside the supplemental feeding part, but just directing myself to the comment Mr. Rupp made. He said in order to preserve the—I think I'm quoting it correctly—if the decision is made that the grizzly is to survive, then in the forest it would require, as he saw it, some restriction of activity greater than has taken place in the past. And he said this is a tough decision, because this is going to affect people's livelihoods. I really wasn't quite sure whose livelihood he was

talking about, whether it was the sheep herders or grazers or who. I should have asked that question.

Is Mr. Rupp here?

Mr. RUPP. Yes.

Senator CHAFEE. Who were you thinking about, whose livelihood might be affected?

Mr. RUPP. I was thinking across the board, Senator—timber sales activities, grazing activities, outfitters, and guide permits.

Senator CHAFEE. Why don't you come forward a little bit, if you could, please?

Well, let's just take the grazing, for example. Now, Mr. Dominick has said that they've grazed up there for years and with calves, and the grizzlies haven't caused any trouble. Now, why would the cattle being up there cause trouble for the grizzly?

Mr. RUPP. In some instances where we've had—it's been more with sheep than cattle—but we've had recommendations to remove the grazing from the area, for example, because of confrontations that take place between the bear and the grazing animals.

In those instances, what I was referring to, that if we were to move that grazing operation, or eliminate it, because of those conflicts, then there would be an impact on the individuals.

Senator CHAFEE. Well, let's take the grazing of the cattle, for example, here we've got an experienced man, whose family has been doing it for—how many years did you say?

Mr. DOMINICK. Twenty-five.

Senator CHAFEE. Twenty-five, and never lost a calf, to the best of his knowledge. I guess he knows. What would be the problem with that?

Mr. RUPP. Well, in that particular instance, I assume there wouldn't be a problem.

Is there examples to the contrary?

Senator CHAFEE. Do you know other grazers that have lost calves?

Mr. DOMINICK. There's a possibility of a loss of a calf on Table Mountain in the Clark's Fork, which is the same drainage as the Sunlight, by the Bugas Ranches. Whether that's documented or not, I do not know.

Senator CHAFEE. Well, let's take the outfitters now. You say they go up there. Now, at least for the experienced fellows who know what they're doing, what's the problem there that you're worried about?

Mr. RUPP. We're speaking in terms of examples. With the recent policy changes in the national level on outfitting and guiding, there are applications being applied for by new outfitters and guides, and existing outfitters and guides who wish to expand their operations, would be more outfitting camps. What I'm saying in that case is that the effect would be more opportunity for confrontation with outfitting and guiding with the camps that are set up and established.

The restrictions I'm talking about would not necessary be elimination, but in how they would operate those camps, what they would do relative to food supplies and so forth. Those types of confrontations, if they occur, could cause us to disallow an outfitting/guiding operation in a particular location.

Senator CHAFEE. Does the presence of the outfitters going through with their parties disturb the habitat for the grizzly? The grizzly can still go about his business seeking berries and so forth, and the outfitters just move on through. It isn't as though they're camping there for any extended period. Does that promote a conflict?

Mr. RUPP. Some of the camps are for extended periods.

Senator CHAFEE. You mean for fishing and so forth?

Mr. RUPP. And hunting season, or some of them are outfitting and guiding camps that operate throughout the summer.

Again, it isn't their activity that causes damage to habitat, it's the human confrontation with the bear.

Senator CHAFEE. In that case, who are you worrying about: the human or the bear?

That somebody would get injured?

Mr. RUPP. Both. The bear is usually the loser. When you have that type of a confrontation, it's usually the bear that ends up losing.

Senator CHAFEE. What do you mean, that they shoot the bear?

Mr. RUPP. Yes.

Senator CHAFEE. Well, these gentleman say that they've been around doing this for many, many years, and they've never had to shoot a bear.

Mr. RUPP. We do have instances of that occurring.

Senator CHAFEE. You mean the bear gets into the camp and starts doing the damage as Mr. Brown indicated, and then you end up shooting the bear?

Mr. RUPP. Into camps, or after game is killed, if it isn't properly stored, these are the type of restrictions we're talking about. Those type of confrontations take place, and in some cases the bear gets killed.

Senator CHAFEE. Keith?

Mr. DAHLEM. The bear that tore in last year was destroyed.

Senator CHAFEE. By you folks?

Mr. DAHLEM. No; by the Game and Fish. He had to be destroyed.

Senator CHAFEE. Is Mr. Barbee still here?

Mr. BARBEE. I can't deny it.

Senator CHAFEE. Can we have one more shot at him?

The unfair thing is you're new in the beat.

What about the proposal that so many have made here, starting with John Barlow and all these gentlemen here have made in going back to the feeding—not the supplemental feeding, but the dumps and having the dumps. It just seems to make such sense, to have the dump not nearby where all the people are—it may cause some trucking problems—but have a dump just off by itself. Is that possible? What are the problems there?

Mr. BARBEE. I'll give you my opinion, Senator. I believe it would be a great leap backward. The national parks, I think, began to reach an age of enlightenment in regard to managing resources in 1963 with the appointment by Secretary Udall of his wildlife management advisory committees. Starker Leopold headed up that committee. There was a group of relatively stellar scientists on that committee. And, in effect, they developed what's become a manifesto for the management of natural resources in national

parks, which gave us a conceptual plan with an ecological basis that removed emotion and sentiment and guided our efforts biologically.

And within that framework, our policy in Yellowstone regarding the management of the grizzly have proceeded without the artificality of dumps. And to step back and reopen the dumps, I believe, would be a great mistake.

I would summarize my observation along that line by the following counsel, and that would be to let us continue to pursue the management efforts that we have under way now, the interagency effort, and monitor it closely to see if it works.

Senator CHAFEE. Well, obviously we get to the crux of the problem here. And you've expressed it in a very thoughtful way. I do think that we just can't be changing our course all the time, back and forth. If we've followed a path, we ought to try it. At the same time, we've had some pretty good evidence, that as a result of all this that the animals have moved into the lowlands and into areas like Mr. Dahlem's ranch and shown up where they never were before and reduced reproductivity of the females. We got a real problem here. But again, I think there's a lot in what you say. Let's try a course; we've gone on it, for better or worse, let's see what happens.

In any event, I appreciate you thoughts.

Senator SIMPSON. I think I hear a confusion when we talk about dumps and supplementary feeding. I don't think those are the same. They're not the same as I envision it. Reopening the dumps and getting the old garbage and throwing it around is not what I had interpreted to be the phrase supplementary feeding, which is carrion or elk or winter-killed elk or bison or whatever. And there are many of those in Yellowstone National Park. I think there's quite a difference there. I think we ought to try to keep that distinct; is that not correct?

Mr. BARBEE. That's correct, Senator. Senator Chafee asked me specifically about the dumps. But certainly there's a distinction between reopening the dumps and the forms of supplementary feeding that have been suggested; although there are certain similarities, also. They all get at the same thing.

Senator SIMPSON. I think the Leopold report is what led to the listing of the animal; is that correct?

Mr. BARBEE. I was referring to an earlier report in the early 1960's which was not related to the grizzly, but just to wildlife, and, in fact, the management of all natural resources in the park.

In 1975—or 1976, I believe—I guess I'm not sure which report we're referring to.

Senator SIMPSON. Well, the Leopold report is what led to the listing of the grizzly. I think that's one of the real reasons why it was listed. It would be interesting to hear—and I should have asked it before—what is the population that the grizzly would have to reach before it would be delisted as endangered? What is that figure?

Mr. BARBEE. I can't relate to that.

Senator SIMPSON. I'm just saying that nonintervention and the natural position has not worked, if there are less grizzly bears now. It seems the issue should be stewardship instead of nonintervention. I would hope that we might pursue that, more than just the

natural thing, which obviously is reducing the population, along with poaching, and other things.

Tommy, you had one more thing you wanted to say?

Mr. THOMPSON. Yes, sir, I would disagree with Mr. Barbee on one step backward, because I would like to know how many grizzly bears were killed in the park after they closed the dumps in the park itself, 1 year, until they got to where they could live with them?

And I'll let Mr. Rupp off the hook, because he—I didn't mean supplementary feeding out here in the Shoshone National Forest anywhere when I was talking. I meant in Yellowstone.

Senator SIMPSON. Well, I'm not going to let you and Bob fight here.

Do you have a quick 10-second response on how many bears there were?

Mr. BARBEE. We have that information here with us somewhere.

Senator SIMPSON. I think that is in a record, but I just don't remember the figure. What was it?

Mr. BROWN. Well, the critical period someone referred to was 200 bears killed during that period, 1968 through 1973, a 6-year period. And the records show that 9 bears went to zoos during that period, and an additional 46 were destroyed. And that was during that dump-closing transitional period.

Senator SIMPSON. Well, that's one of those things that we'll have to weigh in the testimony; because when those dumps were closed in World War II, I think we found a destruction of about 28. And then that was something that could have been perhaps read again in a later time. Anyway, those are things we'll use to form new decisions.

I thank you very much for your testimony. It's been very helpful.

John, do you have anything?

Senator CHAFEE. No; I just want to join in the thanks to these witnesses and to others. Because all of you have come some distance, and we're very grateful to you for the help you've given us.

Senator SIMPSON. So the final panel of the morning will be Dale Strickland, Wyoming Game and Fish; Larry Roop, Wyoming biologist, and a known expert in grizzly bear population and information about the animal; Gene Allen, Montana Fish and Game; Keith Aune, a Montana biologist; Jerry Conley, Idaho Game and Fish; and John Beecham, Idaho. And we certainly appreciate your being here.

Mr. Strickland, please.

STATEMENT OF DALE STRICKLAND, ASSISTANT CHIEF GAME WARDEN, WYOMING GAME AND FISH DEPARTMENT

Mr. STRICKLAND. Mr. Chairman, my name is Dale Strickland. I'm assistant chief game warden of the Wyoming Game and Fish Department. I'm also Wyoming's representative on the IGBE.

On behalf of the Governor of Wyoming, the Honorable Ed Herschler, the Wyoming Game and Fish Department director, Don Dexter, I wish to express our sincere appreciation to you, Senator Simpson and Senator Chafee, for allowing us the opportunity to

appear at this hearing and have our remarks entered as a permanent part of the record.

Management of the grizzly bear in Wyoming has been made difficult by conflicting viewpoints and emotionalism. Wyoming has been concerned for the welfare of this species and continues to be concerned with its perpetuation and management on the basis of sound biological data. The Wyoming Game and Fish Department has taken a leadership role in the management of the Yellowstone grizzly. We have consistently taken definitive action in the protection of the bear as well as actively participating in all phases of management and research.

As early as 1968 the game and fish department became concerned with mortality of the grizzly bears in the Yellowstone region, and the Commission established a moratorium for hunting the grizzly bear for 1968 and 1969. The season was reopened in 1970 with hunting by permit only. Hunting was allowed on a limited basis through 1974.

The grizzly bear hunting season was closed after 1974 and has not been reopened. Wyoming continues to seek some form of State management of the grizzly.

The Endangered Species Act of 1973 came into effect during the period of limited hunting of the grizzly bear in Wyoming. Shortly after the passage of this law, the grizzly bear was classified by the U.S. Fish and Wildlife Service as threatened species. This classification of the grizzly bear was recommended against by practically all agencies responsible for the management of bears and their habitat, including the States of Wyoming, Montana, and Idaho, the U.S. Forest Service, the National Park Service, the National Wildlife Federation, and several other organizations, and agencies. The outstanding sentiment at that time was that the bear had adequate protection without classification, and the classification would only complicate management without adding additional protection for the bear.

The decision to classify the grizzly as threatened was an emotional rather than a scientific one. As a result of this classification, the management of the grizzly bear and its habitat has been made extremely difficult. These difficulties have arisen from a variety of problems associated with the restrictive requirements of managing a species covered by the Endangered Species Act. My comments in no way are meant to be derisive of the act. The act in itself is excellent, and was created for sound biological, social, and political reasons. However, the act is designed for those cases where the perpetuation of the species is dependent upon total protection. Listing under the act should only occur when there is sound justification for that listing.

It has been the opinion of Wyoming that the management of the grizzly bear, as with the management of all other State-resident species, is best handled by the Wyoming Game and Fish Commission. We have demonstrated our sincerity with regard to the grizzly bear even before Federal listing. In addition to our protection of the species, we have been supportive in efforts to gather information on this population. Past Director White was instrumental in the formation of an interagency study team and steering committee. This Department's participation on the interagency grizzly

bear study team, the grizzly bear steering committee, and various other committees is a matter of record. In addition, the Game and Fish Department has provided the trapping and transplanting efforts associated with the management of problem bears. Wyoming, Montana, and Idaho have provided the majority of law enforcement for the protection of the grizzly bear.

We are presently experimenting with partial closure of black bear hunting or bear baiting in the Yellowstone region.

It is very difficult to manage this grizzly bear population under the present administrative structure. It is the Wyoming Game and Fish Department's opinion that the present situation with the grizzly bear warrants immediate action. We recommend the returning of management of this species to the States where it belongs. The Wyoming Game and Fish Department, along with the States of Montana and Idaho, can and will develop a management plan for the grizzly bear in the Yellowstone region. This management plan must be based on the recovery plan, but it must go further. The management plan must establish measurable, quantifiable objectives for the grizzly bear and its habitat. One of the problems in past grizzly bear management is that no one has been willing to say how many grizzly bears were enough, and what would be done with bears if objective were exceeded. Any grizzly bear management plan must address this critical issue.

In addition to objectives regarding the population itself, there must be objectives for occupied habitat established, and there must be management options provided to the States when bears occur in areas outside of those designated as habitat for the grizzly bear. At present, the direction seems to be to accept grizzlies wherever they occur. With a species that is so apt to move long distances, particularly during dispersal activities of the young animals, this approach is unreasonable. Any management plan developed by the States can only be implemented with the concurrence of the U.S. Fish and Wildlife Service and Federal land-management agencies. We recognize this fact and propose that grizzly bears be managed with the same sort of cooperation that we have with Federal agencies on the management of nonlisted species—perhaps the best example of that is the Jackson Hole elk—and support the continuation of the interagency grizzly bear committee.

We can no longer have the luxury of sitting in meeting rooms and continuously discussing the problems, and potential solutions. Wyoming feels that management of the grizzly bear must proceed. It is true that we need more information regarding the Yellowstone grizzly bear population and its habitat—information the interagency grizzy bear study team is presently collecting. Nevertheless, we cannot put off management decisions until every piece of information is in hand. Management decisions regarding the grizzly bear must be made today.

And today we've heard of visions from Patagonia and visions from Moose, WY. What we need are decisions from those responsible for the management of the bear and its haitat.

Thank you for the opportunity for these remarks. I'll be glad to answer questions. I also have Larry Roop, a distinguished and knowledgeable bear biologist, who will also answer your questions.

Senator SIMPSON. Thank you very much.

Larry, then you don't have anything to add at this time?
Mr. ROOP. No.
Senator SIMPSON. Fine.
And Gene Allen, please.

STATEMENT OF GENE ALLEN, ADMINISTRATOR, WILDLIFE DIVISION, MONTANA DEPARTMENT OF FISH, WILDLIFE, AND PARKS

Mr. ALLEN. Mr. Chairman, my name is Gene Allen. I am the administrator of the Wildlife Division of the Montana Department of Fish, Wildlife and Parks; and I represent our department today.

We appreciate the opportunity to come and comment. I will speak for both Mr. Aune and myself at this time; and then we'll both be available for questions.

Senator SIMPSON. Thank you.

Mr. ALLEN. Up until now, most of the discussion has centered around the Yellowstone ecosystem. I'm going to broaden that discussion a bit. I think it's important that we recognize there are other grizzly bear populations that we should be concerned about. Many of the problems are different. A lot of comments will apply to all grizzly bears.

Montana is the only State that has grizzly bear populations in each of the three ecosystem areas defined by the interagency committee. We're not sure whether that's a blessing or a curse at this point, but it is a fact. And it is important to recognize that the problems we face in each ecosystem are different, and that solutions to those problems are going to also be different. And I hope that we don't fall into the trap of assuming that whatever is good for the grizzly bear in the Yellowstone ecosystem must also follow that that is what you should do in the other systems. We don't believe that that is true, and I hope you don't either.

Over the years, management of grizzlies in Montana has taken many directions. The direction has been primarily related to public attitudes about the grizzly and man's desire to utilize grizzly bear habitat.

Early on, grizzly was considered a stumbling block to the development, and the only good grizzly was a dead one. More recently, people have recognized that the grizzly is a valuable big game animal, and that it's an important part of our heritage, and that certain populations should be maintained.

Right now we're in a period of uncertainty with agencies and public as to what we should do. On the one hand, the grizzly was just named as Montana's State animal, after, a very spirited campaign in the State legislature. On the other hand, we have a very strong push for resource development that would use off the last wildlife strongholds of grizzly bear habitat. And we're faced with the dilemma of managing a species that we both respect, and fear, and that has to use areas occupied by man a part of the year.

As a resident species, we recognize the key role that must be played by the State in the preservation of the grizzly, and we accept the responsibilities that come with this role. We also recognize that interagency cooperation and coordination is necessary to

satisfy both the threatened classification and the fact that grizzly bears roam largely on public land.

I would like to briefly run through some of the things that we are doing with and for grizzly bears, and point out some of the areas where we feel additional effort is required.

We do maintain a hunting season. That has been mentioned several times. Just a word of clarification—the 25 quota is for all man-caused mortalities in our ecosystem. And if 25 has been reached by other man-caused factors prior to the hunting season, there will be no hunting season.

Senator CHAFEE. Such as poaching or something like that?

Mr. ALLEN. Correct. And I think it's significant to throw out here that since 1975, with a wide-open hunting season, unlimited number of grizzly licenses sold, we have never reached the 25 quota for all man-caused mortalities in that ecosystem.

We strongly believe that hunting has played an important role in the long-term protection of grizzly by keeping bears wary and controlling nuisance bears accustomed to people. We also strongly believe that this prerogative must be maintained to be used at the discretion of the state.

Now, we are continually working to improve our enforcement capabilities. We are increasing our educational efforts to try and ensure that grizzlies are not killed accidentally or for reasons that could have been avoided.

I would add here that the best solution is not to catch the violator, but to prevent the reason why the bears and people are together in the first place.

We do cooperate in control actions for nuisance or problem bears when it's necessary. However, this effort is expensive, time consuming, and at best success is marginal. Again, prevention is the best cure, and we believe that additional funding for aversive conditioning or rehabilitation studies may lead to a greater survival of grizzlies.

Now, we do monitor all moralities of grizzlies from all the econsystems. We look at carcasses for biological information. We believe this effort could be enhanced by a more comprehensive recordkeeping by all agencies of tagged bears, so that there's one central place for all of this to take place.

We have purchased key lands, primarily along the Rocky Mountain Front in the northern ecosystem, in part to provide an important place for the grizzly bears to live.

Senator SIMPSON. I think you've gone over 5 minutes. If you could summarize that, I'd very much appreciate it.

Mr. ALLEN. We've had several studies going on. Federal funding is lacking in most of them. We have been denied Section Six Endangered Species Act funding because of a State law that allows people to kill bears if they are destroying livestock. We also believe that this is not an appropriate interpretation of that law. We believe that section 6 money could do us and the grizzly bear a lot of good.

And I guess in summary, we believe that habitat preservation is the most important element for the future of the bear, and that people are going to have to recognize that certain developments such as, "Ski Yellowstone" and more than 25,000 miles of roads

proposed in the draft plans of the Kootenai, Lolo, and Flathead National Forests will not enhance the grizzly's chance for survival.

And we'll be happy to answer questions.

Senator SIMPSON. Thank you very much, Mr. Allen.

Mr. Conley, please.

Mr. BEECHAM. Mr. Chairman, my name is John Beecham. Mr. Conley was not able to attend.

Senator SIMPSON. All right. Thank you very much, Mr. Beecham.

STATEMENT OF JOHN BEECHAM, WILDLIFE RESEARCH SUPERVISOR, STATE OF IDAHO

Mr. BEECHAM. I'm the wildlife research supervisor for the State of Idaho stationed in Boise, ID. And I appreciate the opportunity to give you a brief statement about Idaho Fish and Game Department's involvement in grizzly bear research and management.

In the last 27 years, we've taken a pretty conservative approach to grizzly bear management by giving them complete protection within the State of Idaho.

In the Yellowstone ecosystem, grizzlies frequently move through those areas of Idaho immediately adjacent to the park. But we have not experienced many of the problems associated with managing grizzlies that the States of Montana and Wyoming have experienced. In fact, the only real problems that we predictably face each year involves grizzly bears using summer home areas in the Island Park area and a couple of domestic sheep allotments in the Island Park and Aspen Ranger District. In both cases, we are cooperating with the National Park Service and the Fish and Wildlife Service and the Forest Service in attempting to minimize these conflicts.

We have been actively involved in the Interagency Grizzly Bear Committee, research efforts in Yellowstone National Park since 1974. At this time Director Jerry Conley is a member of the new Interagency Grizzly Bear Committee. And members of his staff serve on the IGBC Research Subcommittee and two of the management subcommittees.

We are also involved in a cooperative grizzly research effort in the Selkirk Mountains in northern Idaho, along with the Fish and Wildlife Service, the Forest Service, and the Washington Department of Game. And we are hoping to initiate habitat survey in the Selway-Bitterroot ecosystem in 1984, again in cooperation with the Fish and Wildlife Service, and the State of Montana.

I'd like to thank you for this opportunity to present this testimony. And I'd be glad to answer any questions that you have.

Senator SIMPSON. Thank you very much, Mr. Beecham.

I would ask you, since you're from Idaho, the hearing back in 1977, I think it was a Mr. Greenley testifying that in Idaho—I think he said all taking of grizzly bears was due to prevention of livestock predation. Is that still a valid statement today?

Mr. BEECHAM. As far as I know, sir, the only grizzly bears that have been either moved or removed from Idaho have been in association with the domestic livestock grazing in the Targhee National Forest, or around the summer home developments in the Island Park area.

Senator SIMPSON. Is that cattle or sheep?

Mr. BEECHAM. Sheep.

Senator SIMPSON. Mostly sheep? Only sheep, is it?

Mr. BEECHAM. Yes.

Senator SIMPSON. First response of sheep rancher might be destruction of the grizzly; is that not correct?

Mr. BEECHAM. I think that's a traditional response, sir.

Senator SIMPSON. We'll leave that couched in that language.

Larry Roop, you've done a lot of work, I know personally. Do you feel that the designation of critical habitat should be redesigned in order that it be based on a more sound scientific data and base? Even though we don't talk about critical habitat, but obviously we have to find it as critical something, restricted area.

Mr. ROOP. Well, the critical habitat as you know, of with the Endangered Species Act as such has been dropped. And as I understand it, there has been no classification of critical habitat for the Endangered Species Act.

What we're working with now is something that perhaps has less legislative authority and less real enforcement backing, but we have the guidelines—which are kind of a recipe book among different agencies—that tell us how to manage the grizzly bear until we can operate on a consistent basis from one forest to another, or in and out of the park.

These situation management areas mostly affect the agencies, but they also affect how they handle outfitters, lodge owners, and so on in the handling of game meat, foodstuffs, and garbage and so on.

There have been some attempt to make these more enforceable. But the main idea of those are to try to remove the nuisances or the problems that create bear conflicts. Now, these were originally—attempts were made to make those on a biological basis. The old critical habitat, if you'll remember, included the Green River Lakes and a lot of area way out of grizzly range, and were not biologically delineated. And there was a great deal of opposition to critical habitat at those hearings. The situation management is a little different.

Senator SIMPSON. Mr. Aune, were you raised here in Cody?

Mr. AUNE. No; I was not. I was raised in Montana.

Senator SIMPSON. All right. I thought I recognized you. I wanted to be sure you had an opportunity to speak, or to respond.

Let me ask, what is the position of all three of your departments on the past Craighead team, that there should be limited grizzly hunting allowed outside of Yellowstone Park in order to minimize human and bear conflict? Could you each give a quick response to that?

Mr. ALLEN. I think the key word is "limited." I think that we believe that hunting, as I mentioned, is a very vital management tool that keeps the bears wary of people, keeps the bear conflicts with people to a minimum, where they usually lose.

We are not interested in hunting bears where we will remove large numbers of bears. But I think some limited control is very good.

Senator SIMPSON. What is your definition of your phrase "adverse conditioning"?

Mr. ALLEN. Aversive conditioning?

Senator SIMPSON. Or aversive.

Mr. ALLEN. Or rehabilitation, some way to take a bear that has been accustomed to people and in trouble with people and somehow retrain him and putting the fear of people back into that bear, through some scaring technique or something. This is something we know very little about, but I think it's a very important aspect of bear management that should have more efforts spent on it.

Senator SIMPSON. Fascinating. We'll be interested to hear a little more about that. They've got us frightened, we should certainly frighten them.

Senator SIMPSON. Let me ask Mr. Strickland. You stated in 1977, I believe, you were involved in a hearing—that the park's grizzly population is stable and able to maintain itself. Do you still feel that? Do you still agree that Yellowstone itself should be the only critical habitat, a species bank, if you will?

Mr. STRICKLAND. Yes and no and not now.

Senator SIMPSON. Did you get that?

Mr. STRICKLAND. We all look back on statements we make and cringe sometimes. But if you always say the truth, you never have to worry about what you said.

At that time we thought the truth of the matter was the data available did not indicate a declining population. Since that time, we have never really had a good analysis data available until very recently. Chris Servheen mentioned a group of objective findings through the Interagency Study Group. Their analysis did show that we've had a gradual declining since 1969. That analysis also suggests that since 1974 that decline may or may not be occurring.

The evidence is not clear, it's not clear that the population is declining. It may be increasing. It may be stable. We're just simply not sure.

I sat on a peer review group in Montana a few years ago that reviewed what the Interagency Grizzly Bear study team has done today. The synopsis, or the consensus of that group of scientists was that we don't know how many we have now. So it's going to be very difficult to tell where we're going. We do know we have grizzly bears now in areas where they haven't been before. And it appears that we may have a stable population. And we need some management options to maintain that.

Senator SIMPSON. One final question, because I think John is as interested as I am. Are your State agencies satisfied with the role that you're now allowed to play in this Interagency Grizzly Committee?

Mr. STRICKLAND. Well, let me ask another question right quickly. I stated that the Department was in favor of some form of management. That includes trophy hunting. The grizzly in Wyoming is classified as a trophy species. Past Director White gave up the right to hunt grizzlies in Wyoming as a show of sincerity when the grizzly was classified as threatened. We would like to change that now, if we could, but under a very limited sense.

As far as our role on the Interagency Grizzly Bear Committee, we've had one organizational meeting; and we didn't agree with the organization, so we went back and designed a new organization, which I received on my desk before I left. So I think that if

the States are part of the committee, full member part of the committee, then we would be satisfied.

Senator CHAFEE. Well, you are that, are you not? Are not the States full members of the Interagency Grizzly Bear Committee?

Mr. STRICKLAND. We've been having committees and committee meetings for a long time on the grizzly bear. And we've been a full member of the steering committee for years. And when the Interagency Grizzly Bear Committee was formed—which is kind of the evolution of the steering committee concept—we were going to be, I think it might be said ex officio members of the committee. We asked that we be full members at the organizational meeting. We have a meeting next week to discuss the proposal. And Fish and Wildlife Service is coming back with regards to full membership for the states.

Senator CHAFER. Thank you.

Mr. Allen, on the hunting of the grizzly bear in Montana, am I correct in believing that you do not permit that hunting in the Yellowstone ecosystem, but just in the northern part of your State?

Mr. ALLEN. That's correct. We declared a moratorium on hunting in the Yellowstone 2 years before the threatened classification.

Senator CHAFEE. And why? Because of the reduced numbers in the the Yellowstone system?

Mr. ALLEN. Because of the recent higher mortality than usual during the dump-closing periods and to take a conservative stand in our approach.

Senator CHAFEE. One of the suggestions that was made earlier, I think it was perhaps by Mr. Barlow, regarding the hunting, which he advocated for Wyoming, was that it increased the sportsman's concern for the survival of the grizzly. And have you found that reaction in your State?

Mr. ALLEN. I think that's one side benefit of it. Our primary concern, however, is that the limited hunting that we do, we believe is directly responsible for the few man/bear conflicts we have in the northern ecosystem. We feel the greatest benefit is to the bear directly, not through the sportsman because of their concern for the bear.

Senator CHAFEE. That's an interesting point.

Mr. Beecham, in Idaho, do you have many grizzlies? What kind of figures do you have?

Mr. BEECHAM. No, sir, we do not have many. We have a few that move through the very eastern part of the State out of the Yellowstone ecosystem. We also have a limited population in the Selkirk Mountains that may number 12 to 15 animals, and then what we suspect are a few transient animals coming out of the northern part of the Continental Divide ecosystem. But in terms of total numbers, there are very few.

Senator CHAFEE. I just want to thank you gentlemen very much.

Yes, Mr. Strickland.

Mr. STRICKLAND. There's been a great deal of discussion today about supplemental feeding and artificial feeding. If you're curious, Wyoming has an opinion about that.

Senator SIMPSON. I can tell you're going to give it to us.

Senator CHAFEE. What other answer can I give than: What is your opinion?

Mr. STRICKLAND. Thank you, sir.

One should remember that the grizzly bear—the data we have on the population suggests that the population has been gradually declining since 1959. The dumps weren't closed until the late 1960's and early 1970's. That suggests to me and a number of people that artificial feeding, at dumps or otherwise, may not be the solution. And we have to be prepared not to rush forward to artificial as a panacea to the problem of the grizzly bear; because, in fact, we may be delaying the inevitable, and that is that we're not managing the habitat correctly or the population correctly.

Senator SIMPSON. Well, I want to thank each and every one of you. I hope you now see what a pleasure it is to serve with John Chafee on that Environment and Public Works Committee. You have a little bit of the essence of a man who is enthusiastically in pursuit of answers. And this has been very helpful, and I'm so pleased to have had him here.

Well, we have certainly had a lively and spirited discourse this morning. I would wish to thank all of the witnesses this morning for their valuable testimony. I am certain that a number of enthusiastic conversations will follow this hearing.

Now, just a few comments of my own.

I would wish to commend you all. I know that each of you here wishes to see the grizzly survive and prosper. Yet, I am concerned that along the line the Federal Government, by changing a park policy, and citizens, by poaching, have caused an imbalance in nature that was manifested previously.

Senator Chafee and I have both been involved with some tough and scientifically complex issues—the Clean Air Act, the Clean Water Act, the Uranium Mill Tailing and Radiation Control Act, acid rain, and the Endangered Species Act. We have seen what scientific disagreement can mean—it can mean chaos and inefficiency. I trust that on this issue—most of the scientific disagreement may be behind us. What we have left is this. We have a current population of grizzly bears, at whatever numbers. We must now go forward, and either declare that this is the naturally sustainable population or we must clearly define what the optimum population should be. Then we should set our sights on seeing that the grizzly is removed from the threatened list as is spelled out by the goals of the Endangered Species Act. After we have determined specifically and clearly what the population should be, we should endeavor to implement a natural supplemental feeding program by transporting natural carrion and/or fish to remote, controllable locations inside Yellowstone Park. In addition, we certainly ought to reexamine the fire-burning policy within the park to determine if we cannot add to the carrying capacity of the park naturally. We ought to realize that the grizzly was listed mainly because of reductions inside Yellowstone Park, and this notion should give rise to the thought that Yellowstone Park should be a species bank. And, last, we ought to reconsider the role that hunting plays in wildlife management; not just the role of taking aggressive bears, but the larger role that hunting plays in increasing human awareness about the plight of wildlife in the United States.

Before the west was won, it mattered little—but to a very few people—that wild animals were actually becoming extinct through

commercial hunting or habitat destruction. Teddy Roosevelt was among the first to recognize that hunting, though it harvested some animals, could also be the salvation of the greater population. Teddy Roosevelt also realized that by encouraging conservation and good sportsmanship—by educating and making right-minded hunters—it was the best way he knew to provide threatened animals with a constituency. Now, that is a gem.

I thank you all for attending and look forward to hearing from you in the future—a future that I trust will continue to recognize the need to sustain and assure the survival of this awesome animal.

Senator CHAFEE. I want to join in the thanks to all of the witnesses and to the audience that's been so patient here throughout this, and such a good audience. I think we had one little baby over here; and even the baby behaved extremely well.

And I want to pay tribute to your outstanding Senator Alan Simpson, who has done such a good job on this and the work on the committee. And also I want to comment that Senator Wallop is extremely interested in this. As you know, he's the chairman of the subcommittee in the Interior Committee dealing with public lands, and so he's very interested in your activity. He wanted to make sure that I convey to him the findings and the results of this hearing, which of course we will be doing, and he'll be following them closely.

You're very, very fortunate, in the State of Wyoming, to have such outstanding representation in the U.S. Senate with your two fine Senators. I say that not as just a guest coming to town and saying nice things, but I say it most sincerely; because you're very well represented with Senator Malcolm Wallop and Senator Alan Simpson.

So, to you, Alan, and your hospitality and all you've done; and to the stenographer who has done such a fine job; and all the witnesses; we thank you very, very much.

Senator SIMPSON. Thank you. And the hearing is concluded.

[Whereupon the hearing was adjourned to reconvene at the call of the Chair.]

[Statements and other material submitted for the record follow:]

ENTERED BY SENATOR SIMPSON

FOR THE RECORD

The following is a brief chronological representation of pertinent events involving grizzly bear management compiled by the staff researchers.

YEAR(S)	
1800	Grizzly bear population estimated to be 100,000 in the American West.
1805	Grizzlies regularly encountered by Lewis and Clark expedition in Montana.
*1872	Yellowstone National Park established, dumps are opened.
*1886	Unrestricted hunting in Park ends. Park made place of special protection for bears.
1907	First recorded human death by bear in Park.
1909	Bears number as "autumn leaves" in Park.
1935	Grizzlies have disappeared from Arizona, California, New Mexico, Oregon, Utah and the Prairies.
1931 - 1965	71 grizzlies killed for control, excluding 1942.* (average 2.08/year)
1941	320 grizzlies counted in Park.
1942	Last death by bear before 1967 policy changes. *28 grizzlies killed for control purposes, probably due for first closing of dumps in Park.
1959	Craighead research team begins work. *Craighead estimate of 222 grizzlies for Yellowstone ecosystem. *Kill rate from 1959 to 1967 estimated to be 18.9/year.
1963	Leopold Report on National Parks -- radically changed Park policy. Report recommended policy change which resulted in closing of dumps.
1964	Wilderness Act sets aside grizzly land.
1965	899 black bear sightings according to Barnes-Bray Study.

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*1942 - was one of the highest years of bear mortality caused by man, due to rapid closing of dumps during World War II.

YEAR(S) (Cont'd)

1965 - 1967 Barnes-Bray Study on back country bears.

1966 202 bears counted in Park. *33 mortalities of man caused "bear control actions" to deal with "problem" bears.

*1967 Last study on black bears. *Grizzly population termed "viable and self-sustaining". *Jack Anderson made Superintendent of Yellowstone. *Dumps begin to be replaced with incineration of garbage. *First Supervisory Biologist in Park. *Craighhead study criticizing rapid closure of dumps is submitted to NPS. *Craighead team estimates 245 grizzlies in Yellowstone ecosystem (peak population). *Two female hikers are killed in separate incidences in Glacier National Park.

1968 Craigheads complete 1959-67 study. *Dumps closing -- bear control actions increase from 13 killed per year to 63.3. *Wyoming begins moratorium on grizzly hunting. *Rapid dump closing begins. *Craigheads estimate 231 grizzlies in ecosystem, Committee on Yellowstone Grizzlies estimates 234.

1969 Craigheads support limited hunting outside of Park. *Park Service bans visual marking and radio instruments on grizzlies to reduce human handling.

1970 Park Biologist Cole reports there are 792 grizzlies. *Craighead estimates 218 grizzlies. *76 grizzlies reported killed since 1968. *Man-bear encounters increase. *Special Grizzly Bear Committee of International Association of Fish and Game Commissioners meets.

1970 - 1973 145 grizzlies killed in control actions. A lack of independent research is cited.

1970 - 1975 20 grizzlies reported on sheepherder allotments.

1971 Last of major garbage dumps closed. 101 incidences involving bears.* Craigheads research team leaves Park in dispute with Park Service.

1972 Craighead report indicates an average of 33 cubs/year* produced in 1959 to 1967 period. * = decline in population

1968 - 1972 160 known grizzly deaths reported (average 40/year).*

YEAR(S) (Cont'd)

1973 Department of the Interior commissions NAS to study controversy over grizzly management -- Committee on Yellowstone Grizzlies formed.* Interagency Grizzly Bear Study Team formed.* Bear numbers continue to decline.* Use of snares to trap bears halted.* Grizzly bear counts in ecosystem: 139 (Craigheads); 158 (Committee on Yellowstone Grizzlies); 350 (Cole, NPS).

1974 Committee on Yellowstone Grizzlies terms man-caused grizzly deaths too high.* The Committee on Yellowstone Grizzlies (National Academy of Sciences study) release report on Yellowstone Grizzly ecosystem.* First comprehensive field study of Yellowstone ecosystem.* Governor Hathaway (Wyoming) opposes classification of grizzly as threatened species.* Craighead reports grizzlies decline by 45 percent since 1967.* Park establishes new grizzly policy.* Interagency Grizzly Bear Study Team: known bear mortality is 13 bears in 1974, 125 unduplicated sightings reported in ecosystem by Team.* Craigheads estimate 136 bears in Yellowstone ecosystem.* Committee on Yellowstone Grizzly (NAS) reports 234 grizzlies in Yellowstone ecosystem.* Interagency Grizzly Bear Study estimates Yellowstone ecosystem grizzly population at 237 to 540 bears and supports Craighead estimate of bear population for 1968 to 1970 period.

1975 Grizzly bear classified as a threatened species. 80 bears are reported to winter outside of park boundaries.* "Harry Walker decision" -- courts find NPS negligent in grizzly's killing of a Yellowstone visitor. Biologist Cole reports grizzly population of 221, other reports cite 250 bears.

1976 The National Forest Management Act stipulates that the conservation of threatened and endangered species will not be compromised by other considerations.* Prohibition of radio instruments on bears lifted.* Bear life expectancy drops.* Craigheads estimate productivity of grizzly bear to be one-half cub per adult female year.

1977 National Park reports poor progress on bear management. 90 percent of bear habitat labeled wilderness lands.* 75 injuries from bears since 1931 in Park.* Bear mortalities (reported): 1 accidental, 2 vehicular.

1978 Two (reported) management deaths.

YEAR(S)	(Cont'd)
1979	"Guidelines for Management Involving Grizzly Bears in Greater Yellowstone Area" published.* Interagency Grizzly Bear Study Team reports that, "Sheepherders openly admit they kill every bear they see, whether if it is killing sheep or not."
1980	Few bears reported to reach old age.* Park, in reports, declares management program a success.* Bear mortalities (reported): 1 man caused, 1 accidental, and 2 natural. Most recent estimate of bear population in Yellowstone ecosystem: 181 to 210 grizzly bears, at a minimum. (Grizzly Bear Recovery Project, Servheen).* Fall of 1980, the crop of white bark pine nuts was mediocre to poor in Yellowstone. Winter 1980-1981 - mild -- very little winter kill of elk.
1981	Bears trapped in May and June were all thin and in poor condition, 1981 white pine nut crop a failure . . . .the result was that bears sought food from people -- more bear/human conflicts from a lack of "natural" foods. Park Superintendent Townsley attempts supplemental feeding program introduction for grizzlies.* Richard Knight of Interagency Grizzly Bear Study Team urges closing of Targhee sheepherding allotments.* Two natural deaths of bears reported.
1982	NPS memorandum puts bear population at 187 grizzlies (a 40 percent drop since mid 70's) and reports female grizzlies may number as low as 30.* Park continues to declare grizzly management program a success.* No injuries from bears reported.
1983	Park closes selected back country areas to hikers.* Audubon Society establishes a $10,000 reward for information leading to the arrest and conviction of grizzly poacher.* Chris Servheen, Coordinator of USFS Grizzly Recovery Project says grizzly population is at 200 in Park and 240 to 400 in Yellowstone ecosystem, evenly divided between female and male, and is relatively stable.* Alston Chase article in The Atlantic. Number of females in and around Yellowstone are estimated to be as low as 30. Park Service seeks rapprochement with the Craigheads. Public begins to loudly criticize the Park Service closures of public land.

SUMMARY OF MANAGEMENT RECOMENDATIONS BY FRANK CRAIGHEAD IN TRACK OF THE GRIZZLY, COPYRIGHT 1979, PP. 237-247.

MANAGEMENT SUGGESTIONS FOR YELLOWSTONE GRIZZLIES

Management of grizzly population attempts to minimize conflict over habit, especially within the park itself. It must preserve habitat as well as lessen the danger of injury or death to humans and bears. Visitors to the park have to conduct themselves so as to reduce the possibility of conflict.

John Craighead offers the following suggestions:

(1) The range of Yellowstone grizzlies is about 5 million acres, including the Park and surrounding national forest and wilderness areas. Those agencies having jurisdiction need to reach a formal agreement to manage this area.

(2) Expansion of the above area should be based on careful consideration not sporadic movements of the bears.

(3) Characteristics of the habitat may be manipulated through controlled burns of selective logging, but only in consultation with researchers.

(4) Hibernation habitsand denning sites should be protected from natural fires and logging.

(5) Involved agencies need more cooperation.

(6) Independent research should be allowed.

(7) An effort must be made to assure that man-caused grizzly deaths do not exceed the limit of 10 grizzlies per year as recommended by the Committee on Yellowstone Grizzlies.

(8) If the bear population increases to 1959-1967 levels, estimated at 229, hunting may be considered as an effective population control.

(9) Zoning, by baiting or earth-filled dumps, can be used during the visitor season to reduce conflict between bears and humans.

(10) Campgrounds should be "sanitized" to reduce conflict. More steps need to be taken in this program.

(11) The public should be notified of grizzlies prowling in public areas and how to avoid danger.

(12) Casualties should be thoroughly investigated to determine the probable cause and to correct the situation.

(13)Trapping and releasing problem bears in remote areas should continue. Baiting by placing food in the vicinity of release will ehlp insure that it will remain.

(14) Factual information on grizzlies should be given to all visitors to the park.

(15) A program of private insurance for injury caused by wild animals should be explored.

(16) Many of the above suggestions could also apply to the black bear.

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THE LAST BEARS OF YELLOWSTONE

"In the Yellowstone," wrote a visitor in 1909, "bears are as the autumn leaves," and indeed, since Yellowstone Park was founded, in 1872, bears and Yellowstone have seemed inseparable. For three generations of Americans, coming to the Park was nearly synonymous with coming to see bears. For these travellers, it was the black bear -- Ursus americanus, the impish, appealing, but destructive and sometimes dangerous clown who prowled the campgrounds and begged along the roads, blocking traffic and causing "bearjams" -- that provided many a vacation's thrills.

Few ever saw the grizzly -- Ursus arctos, or silvertip, as westerners call him. But he remained in Yellowstone as a remnant of a species that once roamed throughout western North America. Much larger than the black, ranging up to 1,200 pounds, wilder and more unpredictable, this bear, easily identified by its humped shoulders, long hind feet, broad muzzle, and long gray guard hairs, usually stayed away from human beings. But his presence was felt. It instilled in the hearts of backcountry hikers the most authentic of wilderness emotions: awe. Knowing the silvertip was there, they knew they were in truly untamed country. The grizzly -- with its reputation for ferocity, its intolerance of human beings, its need for great range -- had rightly become a symbol of wild America.

As you enter the Park today, you will still be reminded of the bears. At the entrance, a familiar sign reads, "Bears and other large Animals are Dangerous. . .View from a Safe Distance." At the

gate, the ranger will give you an information packet that includes a yellow sheet, "About Bears," warning you to "enjoy them at a distance." As you drive through or as you hike in the backcountry, you will most certainly see elk, deer, antelope, bison, mountain sheep, eagles and ospreys. But you almost certainly will not see any bears. Last summer, I drove more than 5,000 miles in Yellowstone. During each of the past dozen years, I have spent weeks in the Park. During the past decade, I have hiked more than 1,000 miles of the Yellowstone backcountry. Yet I have not seen a bear by a road in Yellowstone since 1972. I have not seen a bear in the backcountry since 1974. Nor have I met anyone, except National Park Service employees, who claims to have seen a bear along a road in years. Larry Roop, a bear biologist for the State of Wyoming and a member of the Interagency Grizzly Bear Study Team who flies over the Park several times a week looking for bears in areas best suited for them, has not, he tells me, seen a black bear in two years.

Where have all the bears gone?

If you ask a ranger at one of Yellowstone's visitor centers where the bears are, he will tell you the bears have gone wild: that they are there, but out of sight. The Park, he will say, has for 12 years pursued a policy of weaning bears from human food, to produce free-ranging populations of blacks and grizzlies. This program has been successful, you will be told: now all the bears are truly wild, afraid of man, and living in the backcountry.

If you want to study the situation, the ranger will supply you with "fact sheets." From these you will learn that "all our information indicates that about as many black bears inhabit the park now, approximately 650, as when the park was established," and that "an estimated 350 (grizzlies) inhabit the Yellowstone ecosystem."

Unfortunately, I'm afraid, there is not a shred of truth in what you will have been told. The bears have not gone wild. They are simply gone. There never was a scientific field study that claimed there were 650 black bears in Yellowstone, and no scientific study of the black bear has been done since 1967. According to Richard Knight, director of the Interagency Grizzly Bear Study Team, a group that for nine years has been conducting all Park research on the bears, fewer than 200 grizzlies inhabit the entire Yellowstone area; of these, fewer than 70 are adults and fewer than 30 are adult females. Nineteen cubs are born a year, and grizzly-bear fertility and longevity are declining. About 30 grizzlies, he thinks, are killed each year.

These grizzlies belong to a small population that inhabits parts of Montana, Wyoming, Idaho, and Washington. Currently, not more than 600 to 1000 live south of Canada, and numbers throughout this area are declining. Although substantial populations still exist in Canada and parts of Alaska, most experts agree that their continued survival is in doubt.

For the Yellowstone grizzly this decline has been dramatic. As late as 1967, according to the National Academy of Sciences and the U.S. Fish and Wildlife Service, grizzly-bear populations in Yellowstone were "viable and self-sustaining." Yet by 1975 the grizzly was declared a "threatened" species in the lower 48 states. Since 1975, its decline has, if anything, accelerated. No one today in a position to know is optimistic about its future.

The decline of the black bear, although it has drawn less attention, has been even more precipitous. In 1965, according to the only study done on black bears, there were 899 sightings of black bears in one season along the roads of Yellowstone. Yet Knight, Roop,

and other researchers confirm that there are today even fewer blacks in the Park than there are grizzlies.

What has happened to the bears?

The answer, as we shall see, is freighted with paradox.

During the winter of 1961 to 1962, the Park Service began what was intended to be a quiet hunt. Rangers were assigned the task of systematically culling the norther Yellowstone elk herd. Unfortunately, their work was neither quiet nor systematic. Many thought that the killing was indiscriminate, and word leaked out. Many elk that were to be butchered and sent to orphanages, prisons, and reservations were left to rot. Altogether 4,283 animals were killed. The public outcry was enormous.

This official hunt was part of a long-standing Park policy to contain the numbers of the northern Yellowstone elk. To prevent overgrazing, Park officials reduced the herd by periodic hunts such as this one, and by transfers of elk to zoos and game ranges. By the winter of 1961-1962, the herd had grown to more than 10,000 on a range then believed to have a carrying capacity of 5,000. The reduction of 1962 brought their numbers down to 5,700, but word of the slaughter spread, and so did demands that it never occur again.

The Secretary of the Interior, Stewart Udall, established a committee to evaluate the Park Service game-management program. This committee, the Advisory Board on Wildlife Management, was chaired by A. Starker Leopold, professor of zoology at the University of California and son of the great naturalist Aldo Leopold.

Leopold saw his charge in broad terms. "We knew," he recently told me, "the world was looking at us. If we were to recommend public hunting of elk, parks in Africa would feel pressed to permit the public hunting of elephant. We decided that we would develop a

philosophy of management that could be applied universally."

In March 1963, the "Leopold Report", as it came to be known, was sent to Udall. This report's recommendations, its authors admitted, were "stupendous."

"As a primary goal," it said, "we would recommend that the biotic associations within each park be maintained, or where necessary re-created, as nearly as possible in the condition that prevailed when the area was first visited by the white man."

Managing parks as original ecosystems, it continued, required that "observable artificiality in any form must be minimized and obscured in every possible way. Wildlife should not be displayed in fenced enclosures; this is the function of a zoo, not a national park. In the same category is artificial feeding of wildlife."

By these means, the report noted, "a reasonable illusion of primitive America could be re-created, using the utmost in skill, judgment and ecological sensitivity." Unfortunately, accomplishing this goal called for "a set of ecologic skills unknown in this country today." To develop these skills, the committee urged that "a greatly expanded research program, oriented to management needs, must be developed within the National Park Service itself. Both research and the application of management methods should be in the hands of skilled park personnel."

The committee, in short, was advocating that natural ecosystems be re-created while admitting that knowledge of how to do this did not exist. And at the same time it was advocating closing the parks to scientific research and putting research under control of the Park Service.

Udall was reluctant to accept the committee's findings. The report, Leopold said, "was so potentially controversial it scared the

Secretary to death. But later that spring I presented it as an address to an environmental conference in Detroit. The environmental community received it so enthusiastically that Udall changed his mind. Within three months, it was official Park Service policy."

It is not surprising that the Leopold Report was so appealing, for it presented a credo that coincided with a sentiment shared by a growing number of Americans -- distrust of human intervention in the natural world. The parks, the report was saying, should no longer be managed as they were at the turn of the century -- as game preserves, where hunting was permitted, good animals were protected, and bad animals were exterminated. Nor should parks be run as they were during many decades of this century -- as farms, where trees were planted, forest fires fought, pastures plowed and harvested. Nor should they any longer be zoos, where animals were fed for the benefits of tourists. We must play a humbler role, it was telling us, not presuming to make judgments about what species are good and what species are bad; not presuming to decide what lives and what dies. Man must stop meddling with nature.

This was philosophy, not sicence. It was not science that demanded a return to natural conditions. After all, what is an ecosystem? Few biologists, when they are pinned down, will claim to know. There are different ecosystems for every species. Some, like that of the Devil's Hole pupfish, are no bigger than an average-sized living room; others, like that of elk, encompass hundreds of miles. The range of the grizzly, for instance, is huge. The home range of the average Yellowstone male grizzly is 318 square miles, and some individuals have ranges of more than 600 square miles. Is there any park in the country big enough to be a natural ecosystem for all the species it contains? According to a report of the First World

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Conference on National Parks, held in Seattle in July 1962, "few of the world's parks are large enough to be in fact self-regulatory ecological units."

What about Yellowstone? As America's first national park, protected almost from the moment the white man found it, surely it could be a model of natural, primitive America, if any place could. Yet even Yellowstone was not large enough to be "self-regulatory", and more important, it was no longer in original condition. The white man had changed it in countless ways. He drove off the Indians. He introduced exotic species of trout, many in waters originally barren of all fish, and eliminated several subspecies of arctic grayling and cutthroat trout. He killed all the wolves. He sprayed the forests with DDT and eliminated numbers of species of insectivorous birds.

He nearly eliminated the mountain bison (paring its numbers from a historic level of 1,000 to 23 by 1902) and then spent 50 years breeding bison like cattle -- plowing under the native grasses of the Lamar Valley to plant crested wheatgrass, and feeding the buffalo hay in winter.

The white man also fed the bears. For nearly a hundred years, garbage dumps were maintained in the Park, and there the bears -- both grizzlies and blacks -- came to feed. The bears, natural scavengers, became the welcome, wild camp followers of the Park.

Restoring Yellowstone to its original condition would have been an impossible task. It would also have been an unpopular one. It would have entailed bringing back the wolf -- and that would send shivers down the spines of local citizens. It would have entailed the elimination of many fishes and perhaps the end of fishing in the Park -- and fishing groups would not stand for it. And, although this was overlooked, it would require reintroducing the Indian.

Instead, the Leopold philosophy was applied selectively.

In fact, little happened until Jack Anderson, the superintendent of Grand Teton National Park, was made superintendent of Yellowstone, in 1967. Anderson was the first superintendent in Yellowstone history to have, following the suggestion of the Leopold Report, his own "supervisory research biologist" to help develop and support management policies.

With Anderson's arrival, new policies were quickly put into effect, the most controversial of which were the changes in management of elk and bear.

The Park now decided that the elk could manage itself as a wild population. Reductions would be ended for all time. Park biologists were assuming that even in the absence of the wolf -- the greatest elk predator -- this herd possessed some biologically determined "population-limiting factors." Over the past 15 years, however, the elk have not exhibited such traits. The herd was grown from around 4,000 in 1968 to more than 16,000 today.

There was no threat that the bears would overpopulate the Park. But, having grown accustomed to human food, they were seen, following the report, to be unnatural. So the Park Service decided, in 1967, to wean the bears from garbage and transform them into a wild, free ranging population. Unfortunately, weaning the bears would mean in effect killing many of them. Here, as with the elk, the biological compensatory mechanisms were supposed to help. It was hypothesized that weaning the bears from garbage would improve their diet and increase the fertility.

The major effect of the new eco-philosophy, so far as Yellowstone was concerned, was to end the killing of elk, of which there were too many, and begin the killing of bears, of which there were too few.

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Lying behind the new bear policy, however, was something other than ecological concern. As our society became more environmentally enlightened, its tolerance of bears diminished. There was a "bear problem," as Yellowstone officials called it. Bears sometimes damaged property or injured people. Very infrequently, they killed, though the extent of this danger has been greatly exaggerated. In the 95 years of Park history preceding the new bear policy, three people had been killed by bears in the nationl parks (all of them, as it happened, in Yellowstone). The last death occurred in 1942. Yet, on average, each year around a half-dozen people die in Yellowstone from every conceivable cause: drownings, falls, traffic accidents. People are also gored by buffalo and savaged by moose and occasionally die from these mishaps.

In the 1950s, approximately 1 out of every 24,000 visitors was injured by a bear, according to my calculations based on Park Service figures. During the first seven years of the 1960s, this rate went down 50 percent. Yet as the rate went down, concern over it went up.

The first person known to be killed by a bear in the Park was a young man, in 1907, out for a walk with his wife. He chased a grizzly cub up a tree and began poking it with an unbrella. The sow appeared and tore out the man's breastbone and one lung with a single swipe. Although considerable pressure was put on the chief ranger (or scout, as he was then called) to kill the bear, he refused to do so. The bear, he said, had the right to protect her young. That was forest justice.

By the 1960s, the Park was less willing and less able to invoke forest justice. By that time, we had become a litigious people. If, as has happened, Sequoia National Park could be sued by the family of someone who was killed by lightning there, think what a liability the

bear must be. He was to Park Service lawyers what icy doorsteps are to homeowners. A bear injury often resulted in a tort claim against the Park. So when a bear hurt someone, the bear was removed, to prevent further liability. The new policy, as described by Starker Leopold and Durward Allen, both of the National Parks System Advisory Board, was to be one that "protects the people from the bears; protects the bears from the people; and protects the National Park Service from tort cases in the event of mishap." In 1968, the Park began to phase out the garbage dumps, to "bear-proof" waste containers, to increase efforts to educate visitors on sanitation and the danger of bears, to remove all "nuisance" bears.

During this time, the noted naturalists John and Frank Craighead, twins, had been conducting the first scientific study of the grizzly ever undertaken in the Park. Their research -- independently financed -- had begun in 1959. By 1968, employing techniques of tagging and radio tracking individual bears, they had accumulated a data base that even today provides the most complete information available on grizzly population, fertility, and behavior.

But the Craigheads were to run afoul of the new policy. The Park Service, which by this time had its own biologists, felt no need to follow the advice of independent researchers. It was, in fact, anxious to close out independent research on the grizzly. Its decision to change bear policy was made against the Craigheads' advice.

The grizzly population, the Craigheads argued, was fragile, numbering not more than 175 animals. Over the past century they had become dependent on garbage as an important source of food. Maintenance of the dumps in remote locations was the most effective way to keep bears away from human beings. And, the Craigheads argued, it was not necessarily unnatural to do so. Bears naturally eat almost anything,

and probably have always eaten human garbage. To the Craigheads the dumps were "ecocenters" -- centralized sources of high protein where bears might go at critical times of the year to develop the fat reserves necessary to survive hibernation. The grizzly that visited the dump, they argued, was no different from the Kodiak bear in Alaska that, at certain times of the year, goes to his favorite stream to catch salmon.

So long as the dumps were in remote areas, the bears did not associate garbage with human beings and were not tempted to invade human settlements. But if the dumps were closed, the bears, deprived of a traditional food source, would be forced to wander looking for food. This would bring them into contact with human beings, endangering both people and bears.

The Craigheads suggested a controlled, gradual closing of some dumps with a simultaneous careful study to monitor the effect on the bears. During the transition period, and longer if necessary, supplemental carrion feeding in remote areas, or the continued operation of some dumps, might be used to help the bears.

> "We recognize," they said, in a 1967 report to the Park Service, the artificiality of this (maintenance of the dumps) as a management technique. However, any purposeful management of wildlife populations or their habitats can be considered "unnatural". Moreover, within Yellowstone some of the natural population regulating processes have been so altered since the establishment of the park that these are not now effective. Since there is no possibility of these being wholly restored and since management must do the job, artificiality becomes inevitable. Maintenance or reestablishment of the natural situation, although a commendable ideal to work towards in national parks, and we fully

endorse this concept, does nevertheless have limitations that must be recognized.

The Park Service rejected the Craigheads' advice on the basis of objections voiced by Glen Cole, the supervisory research biologist. The Natural Sciences Advisory Committee of the National Park Service, chaired by Starker Leopold, reviewed the issue in September 1969 and declined to recommend reversal of the new program.

The underlying issue was, how do you count bears? They are not easily found. If walking through the woods you see five bears, have you really seen five different bears? The only way to avoid duplicate counting is to do what the Craigheads (and only the Craigheads) did: capture a bear and collar it. But when do you know that you have collared them all? YOu never do. If you somehow managed to put collars on so many bears that after continued search you found none without collars, you might assume that you had found them all, but you could not be certain. And by the time you had reached that point you would have no way of knowing if the first bears you counted were still alive.

Where do you go to find a bear? To collar bears, the Craigheads went to the dumps. Then, by conducting backcountry censues, on the basis of the observed ratio of dump (collared) bears to those without collars, they concluded that the bears that came to the dumps amounted to 75 percent of all Yellowstone grizzlies.

This is where the Interior Department parted company with the Craigheads. There was, it said, a much greater backcountry population. The Craigheads had, it said, fed only garbage-dump data into their computer. "If you put garbage-dump data into the computer," Cole said, "you'll get garbage-dump data out." By killing large numbers of these bears, therefore, the Park Service would not be endangering the

population. It would only be making room for the backcountry population of unspoiled bears the Craigheads never found.

Unfortunately, there was no sound evidence that this backcountry population existed. The Park Service claim was based on a study of black bears conducted between 1965 and 1967 by Victor Barnes and Olin Bray, both graduate research assistants at Colorado State University. During this study, researchers observed, but did not tag, 27 grizzlies in the backcountry, only one of which had a Craighead collar. On the strength of this evidence, the Park argued that dump bears were only a small percentage of the population.

The use to which the Barnes and Bray study has been put by the Park Service has produced much misinformation. This study, which was not even concerned with grizzlies, could not rule out duplicate counting. The sample was also too small to have statistical significance. Part of the black-bear study was conducted in some of the best habitat of the Park, where researchers counted an average of one bear every 5.2 square miles. Government biologists took that density figure -- among the best density figures researchers could find -- and applied it to the entire Park. In this way they extrapolated a black-bear population of 650 -- a completely unscientific conclusion that is still the basis for official estimates.

By 1971, all the dumps were closed. In the same year, the Craigheads' research permit came up for renewal. The Park agreed to renew it only if they would sign an agreement not to speak to the public or publish without first obtaining Park Service permission. The Craigheads, seeing this as an infringement of academic freedom, refused. Their 12-year study came to an end.

As the dumps were closed, the bears began to wander. More came into campgrounds. More people were injured. In response, the Park

began to kill more bears. The number of "control actions", according to a report of the National Academy of Sciences, rose from an average of 13 a year in 1967 and earlier to 63.3 a year between 1968 and 1970. The number of grizzlies reported to have been killed by control actions rose from an average of 3 a year before 1967 to 9 per year in 1968-1970. In all, 189 grizzlies were reported to have been killed between 1968 and 1973.

This was a period that even by official estimates was bloody, but there is good reason to believe that not all bear kills were reported. According to Harry Reynolds, a district ranger in Yellowstone during the late sixties, "Cole, with or without the approbation of Superintendent Anderson, endorsed or initiated a Park practice of not making records of all 'controlled' or otherwise deceased grizzlies." Consequently, according to Reynolds, many bear kills went unrecorded, especially those due to an accidental overdose of tranquilizer. "By this time," he said, in a letter to the National Academy of Sciences, "bears were not infrequently killed in this way by the use of drugs in inexpert hands."

Reynolds' story has been confirmed by many working with the Park at this time. Others tell of finding burial pits filled with bear carcasses in the backcountry. James June, a biologist for the State of Wyoming, has told me of finding piles of bear carcasses near Turbid Lake on two separate occasions during the late sixties, when he was doing field research on geese.

According to Ben Morris, one of the helicopter pilots who transported bears during this period, grizzlies would be hauled to the backcountry three times. "If they came back a fourth time, they were killed. But so far as I could tell, if a black bear caused trouble they just killed it. The Park VIPs felt they couldn't waste

helicopter time and money hauling black bears."

Usually, Morris says, they would take a grizzly to a steep divide on the Park border that sloped out of the Park. After the bear was revived from the tranquilizer, they would case it downhill, out of the Park. "Many of the bears," he adds, "were killed by accidental overdoses of tranquilizer." The problem, he thinks, was inexperienced Park personnel. "But the people working with the drug called it a bad batch of tranquilizer." Morris recalls a time in 1971 when three grizzlies died in two days from tranquilizers, and he suspected there were more. He remembers also another pilot accidentally dropping a grizzly, killing it.

The Park has, or makes available, little information about this period. Superintendent Anderson, according to Park archivist Tim Manns, discontinued in 1967 the long-established practice of requiring monthly reports from district rangers. To this day, the Yellowstone archives have no records on bears after 1967. Whatever materials exist, according to Manns, are said to be in the research biologists' office. When he requested them, he was told they were still in use.

The lack of data from this period reflects the Park's declining interest in science. Immediately after the Craigheads' research terminated, the Park Service began to remove the collars from bears the Craigheads had studied. This was done, it was said, in preparation for the Park's centennial. Collars were considered unsightly and every effort was being made to spruce up bears for the celebration.

With the collars gone, there was no way to settle the numbers dispute between the Park and the Craigheads; there was no way to gather fertility or longevity figures; no further information on the bears' movements and population dynamics was available.

Three years into the new era of official government biology,

science was moving relentlessly in the wrong direction. Now all population statistics were kept by Cole. These consisted of reported sightings by "qualified observers." This was a system that invited double counting; thus, not surprisingly, the Park came up with numbers that, if believed, were reassuring to those concerned about the bears.

The Craigheads, meanwhile, continued to sound the alarm. The grizzly-bear dispute became a public controversy. To settle it, the Interior Department created in 1973 the Committee on the Yellowstone Grizzlies, a division of the National Academy of Sciences.

The committee's report was nearly a complete confirmation of the Craigheads' conclusions. It described Cole's population estimates as possessing "little if any meaning." It suggested that he exaggerated the number of backcountry bears, agreeing with the Craigheads that the dump bears were between 65 and 75 percent of the population. It criticized lax record-keeping by the Park Service of both control actions and injury rates. It suggested that both black-bear and grizzly kills may have been higher than reported. It suggested that "uncontrolled sources of bias" in the figures on bear-caused human injuries "make any comparison of injury rates valueless." It asserted that man-caused mortality rates of grizzlies were too high; that by 1974 they were averageing more than 30 a year, and that the population could not, over the long run, endure a man-caused mortality rate greater than 10.

Included in the committee's recommendations were these: First, "we urge the creation of a nongovernmental coordinating body. . . directed toward the well-being of Yellowstone grizzlies. It must be chaired by a respected neutral individual." Second, "the National Park Service and the U.S. Forest Service (should) pursue a policy of supporting and encouraging independent research on Yellowstone

grizzlies. The freedom of scientists to conduct research throughout the Yellowstone ecosystem is imperative if the data essential to successful management of Yellowstone grizzlies are to be obtained."

These recommendations of course conflicted with the policy of government control of scientific work in the Park, as laid down in the Leopold Report, and the Park Service rejected them both. It continued to make inflated population estimates on the basis of unscientific sightings by "qualified observers." It continued to prohibit radio dollaring or tagging of bears, even by its own scientists, until 1976.

Meanwhile, in place of an independent research effort, the Interior Department had created, in 1973, the Interagency Grizzly Bear Study Team, composed of personnel fromthe Park Service, the Forest Service, the Fish and Game departments of Montana, Idaho and Wyoming, and the U.S. Fish and Wildlife Service, and directed by a Park Service employee, Richard Knight. This team in turn is supervised by a Grizzly Bear Steering Committee, coordinated through Interior Department offices in Washington.

In 1975, seven years into the new bear-management program, the grizzly was declared a threatened species by the Fish and Wildlife Service. The Park Service objected to the classification, seeing it rightly as official acknolwedgement that its bear program had failed. But bear policy did not change.

The plight of the bears worsened. Their hunger made many of them mean, and less afraid of man. Often invading human settlements in the Park, they became the victims of control actions and removals. More wandered out of the Park, to be killed by shepherds, ranchers, hunters, and poachers. More maulings occurred outside the Park. Bears wandered into border communities such as West Yellowstone and

Cooke City, attracted by garbage dumps, where they were sometimes shot.

"Grizzly bears," Roop told me recently, "are wandering farther each year. We are finding them in the northern part of the Beartooth Mountains, also near Bozeman -- 75 air miles from the Park. These are places where grizzlies haven't been seen in a hundred years."

As more moved out, the number killed outside the Park rose dramatically. John Craighead, using Park Service estimates of man-caused mortalities (excluding deaths due to legal hunting, which ended when the grizzly was declared a threatened species in 1975), recently calculated that the number of grizzlies killed outside the Park in the decade since the closing of the dumps is two and a half times what it was during the decade prior to the closing of the dumps.

Shortly after the study team began its real research, in 1976, disturbing trends began to surface. The life expectancy of bears was dropping, possibly due to poor nutrition as well as to human predation. The average life expectancy of bears studied by the Craigheads was more than 25 years. But the team was finding no bears over 16. "Few bears," the 1980 reported noted, "are reaching teh older age classes."

Contrary to the sanguine assumptions of Park biologists that biological compensatory mechanisms would lead to an increase in bear fertility, tne team found that fewer cubs were being born, apparently because the quality of the bears' diet had declined.

There was a growing imbalance in the sex ratio, a dangerously low number of sows relative to boars. "It is evident," the team noted, "that females are being produced and recruited into the population at a lower rate than males and that they are dying at a higher rate than males." This, Roop told me, was probably a result of control actions. Sows, protective of their cubs, were often seen as nuisance

bears, and were therefore more likely to be removed from the population.

Even Leopold and Allen began to sense that things were not working out as they had hoped. In 1977, as members of the National Parks Advisory Board, they wrote, "It would appear that progress in bear management is far from satisfactory. We seem to have grossly underestimated the problem. In the past 10 years grizzlies have killed more people in the parks than in the previous century. . .The task ahead is still enormous."

Meanwhile, as the study team and the Advisory Board were becoming more pessimistic, the Park Service -- particularly the staff biologists (and naturalists trained by these biologists) -- was displaying fresh optimism.

A 1980 paper by Mary Meagher (a former pupil of Starker Leopold's who by then had succeeded Cole as supervisory research biologist at Yellowstone) and Jerry Phillips, a Yellowstone resource-management specialist, concluded that "the bear management program within Yellowstone National Park during the 1970s had achieved the goal of restoring populations of grizzly and black bears to natural foraging conditions. Concurrently the management program reduced bear-caused injuries to humans in developed areas." Likewise, the bear fact sheet used to train naturalists in 1982 states, "The results (of Yellowstone's bear management) thus far have been encouraging -- for the first time in almost a century these truly magnificent creatures are living relatively wild and undisturbed lives."

Clearly, to Park Service officials, the operation is a success even as the patient is dying. How have they managed to persist in this delusion? In part by the way they measure success. Bureaucratic boundaries serve to limite responsibility. Park policy is to protect

the bear in the Park -- and to reduce human injuries caused by bears in the Park. There are fewer bear mortalities and maulings in the Park because there are fewer bears in the Park. Their bear program will be a total success when they have eliminated all bears: zero bears, zero bear mortality; zero bears, zero maulings.

Over the past few months, Knight has been stating in increasingly forceful terms that the number of grizzlies has reached critically low levels. But Interior Department officials have been reluctant to accept his conclusions. From Knight's point of view, this is merely because he is "coming up with the wrong numbers."

"They want me to continue with research," he told me recently, "until I find moregrizzlies. They want to do this because as long as they can say 'We don't know enough' they can postpone making any management decisions. But I can't find any more grizzlies, because there aren't any more. Between the Craigheads and me, 21 years of research have been done on the grizzly. We have both, independently, come up with the same figures. But people in management still won't believe them. So they want more research. But enough research has been done. Now is the time for management to make some policy decisions that will end the killing of bears."

The Grizzly Bear Sterring Committee has been pressing Knight to conduct a "saturation trapping" or "grid trapping" program on the grizzly. The idea is to trap every bear so as to settle the numbers dispute once and for all. Knight refuses to do it.

"I don't want to do the trapping," he has told me. "There is no way to remove all doubt about grizzly numbers. To put traps every place in the Park they want me to I'd have to use snares -- because culvert traps can't be lifted by helicopter. But snares injure bears. Besides, every time you tranquilize a bear you risk killing it with

an overdose."

Other bear experts agree with Knight. "Our studies have not shown that tranquilizers hurt the bear," John Craighead told me a few months ago, "but you cannot rule it out. The fact that few bears seem to be living past 15 years suggests that they have been severely stressed by research and transfers. I agree with Dick Knight -- we knew enough about the bear to save it 15 years ago. Now the question is: Are we going to count bears until we have counted the last one?"

Hank Fabich, a Montana game warden and a vetern of eight years of trapping bears, believes trapping is the single greatest source of man-caused bear mortality. "Every time you catch a bear," he told me recently, "in a snare or culvert trap, you risk killing it. Sometimes you overdose it. Other times the bear goes berserk and breaks a leg or tears out its claws or teeth in the cage. I have found a couple with useless limbs because they have been hobbled and released with the hobbles on. How do you think bears without teeth or claws or good legs can make it? They can't hunt well. So they go into human settlements looking for easy food. They are hungry and mean -- they have a reason not to like us. Then they are killed by administrative removals because they are nuisance bears. Others are never listed as being killed by humans. They just die of starvation. I've seen bears -- young bears that should have been perfectly healthy -- dying in their sleep, in hibernation. Why did they die? Well, some were missing teeth, others claws. One we found with a broken foot. I love the bear and I hate to see this happening. But you can't convince me that we are not doing this to the bear."

Nevertheless, saturation trapping is still on the steering committee's agenda.

The plight of the black bear has been all but forgotten, except by those Yellowstone visitors who look for the bears in vain. But today there is renewed interest in the grizzly. Last summer, a memorandum from the steering committee, reflecting Knight's view that the number of grizzlies had fallen below critical levels, was leaked to the press. For the first time in seven years, there are renewed public demands to do something to save the bears. Government agencies and environmental groups have rediscovered the problem and are jumping on the bandwagon.

Unfortunately, the bandwagon was heading in the wrong direction.

The grizzly's problems are now perceived to lie outside the Park. Black-bear hunters in Wyoming bait bears to their blinds and sometimes kill grizzlies "by mistake." The Forest Service continues its practice of leasing land for sheep-grazing around the edges of the Park, where shepherds shoot grizzlies. People who live in border communities shoot hungry bears visiting town dumps in search of food. Poachers continue to kill bears that wander out of the Park, so long as a carcass can bring $15,000 when sold in parts. (The pancreas, for instance, is prized in the Orient as an aphrodisiac.) Grizzly habitat around the Park is being nibbled to death by geothermal development, oil and gas exploration, construction of new ski resorts and summer homes, grazing, and increased backcountry use by hikers and sportsmen.

Indeed, all this activity now threatens bears, and every effort must be made to stop it, not only to protect the grizzly but to protect other wildlife and the Park as well. But the obstacles to success in halting these killings and this loss of habitat are enormous. Betting the future of the grizzly on our ability to control human behavior in this region is not fair to the animal.

Since bears have no respect for administrative boundaries,

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pursuing a coherent policy means achieving agreement among the states of Idaho, Montana and Wyoming, five national forests, two national parks, and the Fish and Wildlife Service. No one knows how decisions on the bears are to be reached, much less how a coherent change of policy might be achieved.

It is no wonder, therefore, that the architects of present policy sound despairing.

"I wish I knew what the solution was," Leopold says. "If I knew, I'd be out there, banging on doors."

"The grizzly's decline," Mary Meagher says, "is part of a long-term trend, and there is little reason to believe it will be reversed."

"It may be too late to save the grizzly," Nathaniel Reed says, though he urges a last-ditch effort to end illegal hunting. (Reed, an assistant secretary of the Interior under Presidents Ford and Nixon, was instrumental in the decision to implement the new bear policy, and is now on theboard of directors of the National Audubon Society.)

Although various agencies are considering piecemeal measures, no one is optimistic. The Fish and Wildlife Service continues to lobby without success for stiffer legal penalties for poachers and better sanitation in border communities. The Audubon Society is offering $10,000 reward for information leading to the arrest and conviction of poachers. The Wilderness Society and other environmental groups are lobbying for legislation that would protect the greater Yellowstone ecosystem -- an area about twice as large as the Park. Wyoming is considering the prohibition of black-bear hunting in its Jackson district and of bearbaiting in the Cody district.

As important as efforts to reduce human predation and to protect wildlife habitat along Park boundaries may be, these actions alone

will not save the bears. For the source of the bears' decline lies not outside the Park but inside it. Park policy is killing the bears, because it is driving them into human settlements. And no matter how strong the efforts to protect the bears outside the Park, if policy remains unchanged and they continue to wander, they will continue to be killed.

For these reasons, nearly all biologists working with Yellowstone grizzlies believe that saving the bears will almost certainly require, among other things, a program of supplemental feeding to re-establish the Park as an ecocenter. This need not mean reopening the dumps. It might entail, as first suggested by the Craigheads in the sixties, killing a few surplus elk and leaving their remains in a central, remote area of the Park, to encourage grizzlies to stay there and to give them the essential protein necessary to raise their reproductive rate and to endure hibernation.

The concern of these men is not only that past Park policy has been mistaken; they also note thatthe present grizzly habitat in the Park is deteriorating. There may simply not be enough food to keep a fragile population from perishing. The Park is now constructing a new settlement (Grant Village) on the site of five prime grizzly fishing streams. In a few years, Knight says, the pine bark beetle, which is already widespread throughout the Park, will begin to infest the whitebark pine, whose nut is the principal fall grizzly food. When that happens, he says, the effect on the grizzly will be "devastating."

Yet supplemental feeding, although it is sometimes mentioned, is not likely to be made policy unless there is a public outcry. To introduce supplemental feeding is to admit that a system of official government biology has produced 15 years of deception; that hundreds

of bears died in vain; that a beautiful environmental ideal does not work, and worse, is responsible for the near elimination of a species; that prominent individuals, still influential in the Park Service and the environmental movement, were dreadfully mistaken.

In 1981, the late John Townsley, then superintendent of Yellowstone, an outspoken and powerful voice in the Park Service, tried unsuccessfully to introduce supplemental feeding of the grizzly. Although both Interior Department and independent biologists with whom I have talked reacted favorably when they heard of Townsley's plan, I cannot find anyone in management or in the environmental movement in favor of it. Many, confusing the symptoms with the cause, put all the blame on what is happening outside of the Park. Many still do not accept, or do not want to accept, Knight's numbers. Some are simply timid, not wanting to be the first to favor a radical departure from existing policy. Others suggest that supplemental feeding would not keep bears in the Park a significant length of time, or they note, perhaps rightly, that it may be too late to reverse the migration. Still others argue that favoring one animal group over another -- killing elk to save bears -- could destabilize both populations.

Yet the most common objection to supplemental feeding raised by those to whom I have talked is a philosophical one. They do not want to interfere with nature. "If we are not going to have wild bear," Durward Allen (who serves on both the National Parks System Advisory Board and the board of directors of the National Audubon Society) told me, "we are going to have no bear at all!"

To Mary Meagher, feeding the bears is unthinkable: "We cannot play God," she told me.

To Roland Wauer, chairman of the Grizzly Bear Steering Committee, and Christopher Servheen, grizzly-bear-recovery-plan coordinator for

the Fish and Wildlife Service, the prospect of supplemental feeding poses a problem of classification. "We don't want to make Yellowstone a zoo," they said.

These people, and others working within Yellowstone wildlife management, are well intentioned and dedicated to the preservation of our wilderness species. It is both paradoxical and sad, therefore, that they are, in the case of the bear, pursuing an illusion. "Not playing God," "keeping the bears wild," and not "turning Yellowstone into a zoo" are the catch phrases of a philosophy that, slowly but surely, is killing black bears and destroying the grizzly as a species. It is based on a distorted environmental logic that claims it is natural to kill a bear but not natural to feed it, that it is not hubris to re-create an ecosystem but that killing an elk is playing God.

This philosophy is tripping over its own semantic distinctions becaue it is based on myth, yet myth so attractive that few want to be disillusioned. The vision of the pristine wilderness and the self-regulating ecosystem still holds many environmentalists in thrall. That is why we hear so little from those who might help the bear.

The story of the bears ought to tell us that pristine wilderness is gone forever. There is no place on earth that man has not touched, not changed. The grizzly, whose intolerance of man so aptly symbolizes true wilderness, is dying because we have driven him from his home.

There are many reasons why the death of wilderness is difficult to accept. The environmental ethic rejects the Judeo-Christian view that nature was created for our use, to be subdued or consumed. But having removed man from the center of the universe, environmentalists all too often do not know where to place him. Presumably human beings, too, are part of the great web of life, but all too often the

environmentalist perspective excludes them. The Leopold Report excluded them when it implied that man was not part of the primitive scene. The Park Service excludes them when it rules that human garbage is an unnatural food for bears. This philosophy generates dichotomies, in which man and nature are kept apart. The world is divided into the wild and the tame, the natural and the unnatural.

This kind of thinking has theoretically give the bears but two options: to live in a zoo or to live in a natural ecosystem. Our national parts, however, are neither zoos nor natural ecosystems. They are, as John Townsley once suggested to me, social institutions. They are laboratories where we learn how we might coexist with other creatures. Yellowstone demonstrates for the rest of the country how a community that is visited by more than 2 million people a year can remain beautiful, so nearly unchanging; how a settlement that can generate 5 million gallons of sewage a day can still have pure water; how streams that receive hundreds of thousands of fishermen a year can still be natural fisheries. It is in this way, as a model society side by side with nature, that Yellowstone serves as hope for the future. It shows that what people touch need not be made ugly by the touching, and that there is still a place where we might live in peace with other creatures. I think it would be nice, too, if once again, the bears were included in this scene.

[From the Atlantic Monthly, March 1983]

Bears of Yellowstone

Alston Chase's enthusiasm for the case he makes vis-a-vis the issue of grizzly-bear management in Yellowstone ("The Last Bears of Yellowstone," February Atlantic) has led him to commit many errors of omission in order to cast the National Park Service management program into as bad a light as possible.

He grossly oversimplifies the findings of the Craighead research team, who did not admit that their dump censuses of the grizzlies amounted to only 75 percent of the population until Park Service biologist Cole, using the Barnes and Bray study and other staff sightings, challenged their 1967 assumption that they had counted almost all of the bears.

The Park's records on grizzly management before 1967 are quite spotty and uneven; during my years as Park archivist (1974–1977), I examined them. In fact I organized them, and found that, due to inconsistent policies and storage procedures, they are far less complete before 1967 than after. Chase's insinuation, in his remark that the present Park archivist has not been allowed to have the records, is that they are hidden from the public. This is not true; they are in use in the biologist's office and are available to researchers under the terms of the Freedom of Information Act. There are huge amounts of material in these files, hardly indicative of a "lack of data."

Allegations of unreported bear kills, as reported by Chase, have been common. As he knows, however, the Park administration has responded to every such claim. Not a single carcass, or portion of a carcass, has yet been submitted by those claiming such kills. Moreover, some of the claimants had, for professional or personal reasons, grudges against the Park Service. While I do not deny the possibility of unreported kills (in fact, it would not surprise me), we still presume innocence in this country until guilt is proven. Rumor-mongering has characterized every article written on this subject, with no reservations made for witness error, much less witness reliability.

The Report of the Committee on Yellowstone Grizzlies from the National Academy of Sciences "was a nearly complete confirmation of the Craigheads' conclusions" if one ignores that the committee rejected the Craighead computer model as too rigid (not permitting possible compensatory mechanisms to restore the population to natural size), and furthermore, though they suspected that the Park Service control program had "substantially reduced" the population, they beleived that the population was not in immediate danger and was in fact recovering. That amounts to "nearly complete" *rejection*, rather than confirmation, of the Craigheads' most important point.

Chase's favored solution, supplemental feeding, is unpopular for more than philosophical reasons; the Craigheads' monumental study of Yellowstone's grizzlies showed that cub mortality is several times as high (30 percent or more of all cubs in any year) in a population whose bears are concentrated in a central feeding site, be it dump or other. The population is bad enough off, and is being killed needlessly by so many human forces, that we hardly need encourage the bears to kill each other.—Paul Schullery, Livingston, Mont.

Alston Chase replies: I am not surprised that Mr. Schullery found my article disquieting. He is, afterall, the author of The Bears of Yellowstone (published by the Yellowstone Library and Museum Association in 1980), a book commissioned by the Park Service partly to answer the Craigheads' charges.

I certainly did not omit evidence for the purpose of misleading the reader. I didn't have to. The evidence against the Park Service is so overwhelming that I intentionally understated the case—particularly on the subjects of bear killing and cover-up—so that the reader would not think I might be grinding axes.

Now to Mr. Schullery's specific criticisms:

1. Population size. The Craigheads' claim that dump bears represented 77 percent of the population was based on their computer analysis of data gathered over twelve years. In none of their analyses of their data did they claim that the dump population represented "almost all" the bears.

2. Secrecy. As a former Park Service employee writing an officially sponsored book, Mr. Schullery was no doubt privy to documents not made available to other journalists. No doubt also that withholding information is contrary to the law. But illegal acts on the part of the Park Service are not without precedent. (Just a few weeks ago, for instance, the Park Service illegally closed a bear management meeting to the public, to prevent this journalist and others from attending.)

3. Bear killing. If the Park Service was deliberately not telling the public how many bears it was killing, why should anyone believe an "investigation" into this

matter by the Park Service? There is, moreover, overwhelming evidence that the Park Service records are incomplete and that there was, insome cases at least, deliberate under-reporting of bear removals. I have a file folder of such evidence, including eyewitness accounts of bear killings by Park personnel that were never made part of the official record.

4. The Report of the National Academy of Sciences. The NAS did suggest that the Craigheads were mistaken in failing to take account of possible "compensatory mechanisms" that would permit a revival of the grizzly population. But events during the past nine years have proved the NAS wrong on this point and the Craigheads right: there is no evidence that any compensatory mechanisms exist.

Nowhere does the NAS report say or suggest the grizzly population was recovering. While it does say that "the data on hand are not sufficient to make accurate predictions about population," and concludes that the grizzly was not in "immediate danger of extinction," it also emphasizes that mortality was three times a sustainable level.

5. Supplemental feedings. Nowhere did the Craigheads "show" that grizzly mortality was higher as a result of supplemental feeding. In fact, they argued strenuously, for fifteen years, to the contrary. It was Glen Cole, the Park biologist, using Craighead data and imposing his own a priori assumptions, who suggested that their studies implied this. Subsequent studies of grizzlies in Alaska and elsewhere, moreover, have shown, convincingly, that Cole was in error. These later studies suggest that bear mortality is lower at such eco-centers, where bears are concentrated, than it is in free-ranging conditions.

AUG 22 1983

Citizens for Yellowstone's Bears
1595 South Cherryvale Road
Boulder, Colorado 80303
(303) 494-7907

August 17, 1983

Senator Alan K. Simpson
U.S. Senate
Washington, D.C.

Dear Senator Simpson,

Thank you for a most interesting and informative field hearing on Yellowstone's grizzly bear. Your many insightful questions for hearing witnesses will surely provide "food for thought" for some time to come.

One item in particular has been on my mind ever since I left Cody. It concerns your question about the desireability of forming a group of non-agency people that would work with the Interagency Grizzly Bear Committe. Indeed such a group could serve as a focal point for public review and discussion of key aspects of the grizzly bear program (scientific findings, conservation progress, management alternatives, etc.) and, most importantly, help restore confidence in our ability to save this valued species.

I am very interested in your thoughts on how we might further this idea and proceed with organizing the group. Perhaps those persons who provided testimony at the hearing would be willing to participate.

Most sincerely,

Dr. A. Povilitis

National Audubon Society

NATIONAL CAPITAL OFFICE
645 PENNSYLVANIA AVENUE, S.E., WASHINGTON, D.C. 20003 (202) 547-9009

21 September 1983

The Honorable John H. Chafee
Chairman, Subcommittee on
Environmental Pollution
Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

At the Senate Environment and Public Works Committee's field hearing in Cody, Wyoming on 11 August 1983, you received testimony from the Murie Audubon chapter concerning grizzly bear management in the Yellowstone ecosystem. Item 7 in that testimony calls for "experimental field testing of an emergency supplemental feeding program." This important point needs clarification.

The Interagency Grizzly Bear Committee (IGBC) has had the supplemental feeding issue under careful review by its research subcommittee and by an especially appointed supplemental feeding task force for seven months. Chris Servheen, the Fish and Wildlife Service's grizzly bear recovery coordinator, will present the findings of the supplemental feeding task force to the IGBC on 8 November 1983.

The National Audubon Society believes that the supplemental feeding issue is an extremely volatile, controversial and often misunderstood proposition when bandied about in the public arena. We urge that no consideration of any feeding program be initiated before the recommendations of the IGBC are presented and made public. The implementation of this management tool must be based on sound research findings and must be given the most cautious consideration because of the secondary impacts this action will have on other species in the ecosystem and on the bears' subsequent behavior with all human contacts throughout the region.

The National Audubon Society strongly supports the Interagency Grizzly Bear Committee. This committee provides the framework for the implementation of a coordinated Federal/state recovery program and the committee is the most appropriate and informed forum for consideration of any new management actions and policies, such as supplemental feeding.

Sincerely,

Amos S. Eno
Director
Wiidlife Programs

United States Department of the Interior
FISH AND WILDLIFE SERVICE

MAILING ADDRESS
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION
134 Union Blvd.
Lakewood, Colorado 80228

IN REPLY REFER TO:
FA/SE/Grizzly Bear

January 24, 1984

Honorable Alan K. Simpson
Committee on Environment and Public Works
U.S. Senate
Room 4204, Dirksen Building
Washington, D. C. 20510

Dear Senator Simpson:

The following answers have been provided to the questions submitted by Mr. Brent Erickson of your staff to Dr. Christopher Servheen, U.S. Fish and Wildlife Service, Grizzly Bear Recovery Coordinator, Missoula, Montana. These answers are to be included in the record of the Senate Environment and Public Works Committee's field hearing that was held in Cody, Wyoming.

The answers to questions 18, 19, and 20 were provided by the National Park Service. All other answers were provided by Christopher Servheen.

1. Chris, you and others have stated that dumps and garbage condition bears to seek human food. Even if the dumps had never existed and there were no garbage sources in the Yellowstone ecosystem, is it not true that grizzly bears still seek human food because they are omnivorus?

Grizzly bears are opportunistic omnivores that seek food wherever it is available. Once they have been successful in obtaining food at a certain site, at a certain time of the year, or associated with a certain type of activity, they will usually continue to use this food source. Female bears will teach their young to use such food sources, so there is transmission of knowledge of certain foods from generation to generation. If dumps, garbage, and other human-associated food are available in grizzly habitat, it is likely that some bears eventually will find them and continue to use them on an annual basis. The traditional use of human food can be related to certain places where this food was available, such as the Cooke City area or the old Trout Creek dump inside the Yellowstone National Park. The location of human food can also be related to a set of conditions, such as human habitations, camps, campgrounds, garbage dumpsters, etc.

Grizzly bear food habits in the Yellowstone Ecosystem are varied and change from year to year depending on the availability of certain natural food. The availability of concentrations of human food in the system is a relatively new phenomenon related to the coming of the white man. A considerable amount of natural food is available to grizzlies in the Yellowstone area. These bears will continue to use natural food, even if human food becomes available to them in the normal course of their behavior and movements. However, if they are successful in obtaining human food, being opportunists, they will continue to seek this food both at the site where they obtained it and at other sites which may have similar conditions. This seeking of human food brings bears into contact with people, as most of the human-related food in the system is directly associated with human dwellings or human activities such as town sites, outfitter camps, livestock areas, or campgrounds. There is little evidence to indicate that bears which have never obtained food from human sources will actually "seek" human food. Bears which have never had the opportunity to obtain human food are unlikely to associate with humans or human development areas. This highlights the need to minimize the availability of human-related food, thus preventing bears from becoming associated with human developments and the conflicts that result.

2. Chris, in a report you issued earlier you stated that the grizzly was listed under the Endangered Species Act because of a lack of scientific information. I have never heard of actions being taken because of a lack of scientific information -- are there other precedents for listing animals under the Endangered Species Act because of a lack of information?

The grizzly bear was listed as a threatened species in response to concerns about the potential detrimental effects of: (1) present or threatened destruction or modification of habitat; (2) continual loss due to indiscriminate illegal killing and taking of grizzly bears in control operations; (3) isolation of certain populations; and (4) increasing human use in grizzly habitat. There were also certain gaps in scientific information concerning habitat conditions, carrying capacity, total numbers, annual reproduction, and mortality (Federal Register, 40(45):31734-31736). There was also concern that without increased protection and intensive management, that grizzly populations could decline beyond viable levels. Thus, the listing of the grizzly as threatened was not because of lack of information on the nature of the threats but due to a lack of information on certain aspects of the biology of the bear and how the remaining grizzly populations could respond to the potentially detrimental effects of increasing mortality, and habitat disturbance and destruction. I am not aware of any species that has been listed under the Endangered Species Act only because of lack of information.

3. Since grizzly bears are omnivorous how are "carrying capacity" determinations made?

"Carrying capacity" can be defined as the number of healthy animals that can be maintained by the habitat on a given unit of land. Carrying capacity is often thought to be governed by the most limiting food factor in the environment, or by the season of year which is most limiting in terms of food availability. For most big game populations, winter food is generally thought to be the limiting factor because this is the season in which foods are least available. This is, of course, not the case with bears, since they hibernate during the winter. A simplified method of calculating carrying capacity of an animal requires information on the amount of available food per unit area of the habitat, the amount of metabolizable energy contained within these foods, and the amount of metabolizable food energy required by an individual animal per day. The determination of these factors for an animal such as the grizzly bear is an extremely complex process and one which has never been done. The food habits of the grizzly bear vary by season and with changes in food availability. The availability and energy content of natural foods varies depending on environmental conditions and long-term changes in the production of natural food. The distribution of food is not uniform throughout the area where the bears live and the considerable home range size of grizzly bears makes the determination of the amount of available food per unit area within a home range extremely difficult to determine. The amount of metabolizable food energy required by an individual changes throughout the season, depending on sex, age, and reproductive status. Thus, the determination of carrying capacity for an entire population of grizzly bears over a large area such as the 8,800-square mile Yellowstone Ecosystem is an extremely difficult task.

4. In 1975, the Federal agencies composing the grizzly bear study team, along with other credible groups opposed the listing of the grizzly as threatened. This question was asked of you in the hearing and you were not aware of it. Could you provide an answer at this point in time?

The Grizzly Bear Steering Committee which directed the Interagency Grizzly Bear Study Team (IGBT) in the Yellowstone area thought that the research being conducted by the Study Team would be seriously curtailed and that there would be difficulty in obtaining research funds if the grizzly were declared a threatened species (see testimony of James B. White to the Subcommittee of the Committee on Appropriations, United States Senate, November 4, 1976, Cody, Wyoming, p. 55). Since the listing of the grizzly as a threatened species, there has been an increase in research funds for the grizzly bear both in the Yellowstone area and elsewhere. The IGBT has continued to function and still exists in 1983. Thus, the concern of the Grizzly Bear Steering Committee in 1974 was unfounded.

5. Chris, during questioning in the hearing you stated that the number of cubs born per female bear a year was larger during

the times that the dumps in Yellowstone Park were open. This higher fertility rate is directly linked to the amount of protein available to female bears. Why has there been such resistance among the federal agencies to supplementary feeding or carrying (carrion) relocation?

The average litter size from 1959 to 1967 when the open-pit dumps were in operation was 2.2 cubs per female. The average litter size from 1974 through 1982 was 1.9 cubs per female. The present average litter size is probably not much different than the litter size in the system prior to the availability of garbage at open-pit dumps. The increased amount of foods available in the open-pit dumps made the caloric intake and resultant body size and body condition higher for those animals that used the dumps than those that live under present natural conditions. The availability of human foods in open-pit dumps and food concentration sites was an artifact of human use of the Yellowstone area. There was no concentration of natural food or "ecocenter" prior to the coming of the white man in the Yellowstone area. There is also no evidence of a substantial reduction of natural food in the system since that time. The Supplemental Feeding Task Force appointed to review the ramifications of supplemental feeding in the Yellowstone Ecosystem agreed that the grizzly bear population in the Yellowstone area should be able to sustain itself at the present level of nutrition using natural food in the environment if human-induced mortality is limited. Thus, the grizzly bear population in the Yellowstone Ecosystem has no need for the artificial availability of human food for nutritional purposes.

6. One of the most apparent gaps in the grizzly bear debate deals with the imprecise nature of grizzly bear population estimates. During the years that the Craigheads studied grizzly bears in Yellowstone Park, when the dumps were open, it was estimated that up to 75 percent of the parks' bear population was counted by observing individual appearances at the dumps. If supplemental feeding or carrion relocation programs were implemented in Yellowstone Park, wouldn't this provide for a much more accurate means for counting bears without having to tranquilize them or having to install radio collars around their necks?

Population estimates based on numbers of bears counted at the open-pit dumps by the Craighead research team from 1969 through 1970 have been subject to much disagreement and interpretation. In 1974, the Craigheads estimated a population of 154 to 202 based on their estimate that nearly all the bears in the ecosystem visited the dumps. In 1973, Cole estimated a population of 250 to 300 based on the contention that there were 50 to 100 bears which never visited the dumps. The National Academy of Sciences report in 1974 estimated that the Craigheads' census efficiency was 58 percent. Therefore, 132 uncounted bears should be added to the

average dump population of 177 for a total of 309. Subsequently, the Craigheads, using the same approach, concluded their census had 77 percent efficiency and came up with an estimate of 229. Dale McCullough in 1978 re-estimated the population size and census efficiency for the Craighead efforts and estimated a population of 312 with a census efficiency of 56.73 percent. Thus, McCullough concluded that during the period 1959 to 1970, only 56.73 percent of the bears in the area were counted by the Craigheads at the dumps. These various estimates on the number of bears in the Yellowstone area, all made using the same data from the Craighead counts of bears in the garbage dumps, illustrate the difficulty of population estimates and the potential for wide variations in estimates even with a large open-pit garbage situation which had been in existence for many years.

7. In all of the grizzly studies that you are familiar with can you say that any of these studies accurately sampled the entire geographic area of Yellowstone Park?

Since 1974, the IGBT has accurately and intensively sampled the entire geographic area of Yellowstone National Park. More than 100 grizzly bears have been captured since 1974 in the Yellowstone Ecosystem. The majority of these have been radio-tracked for some period of time. Home ranges and movements of these bears covered the entire area of Yellowstone National Park.

8. Recently, the Ad Hoc Committee on Population Analysis released a press release that said the grizzly bear population was stable. Later the Committee issued an error sheet which stated there had been some error in calculating the data and that the actual trend of the population was downward. Was a press release issued announcing the correction, and if not, why not? Who discovered the error in the population analysis?

The Ad Hoc Committee to review the population size and trend in the Yellowstone Ecosystem did not say that the grizzly bear population was stable. The conclusions of the Task Force as stated on page 3 of the Task Force report were: (1) the trend from 1959 to 1980 indicated a significant decline; and (2) no significant trend was indicated for 1974 to 1980. Due to a transposition of a number, there was an error made in the 1974 to 1980 trend estimate. This error, when corrected, resulted in a statistically significant downward trend. The original calculation indicated a downward trend, but it was not significantly different from no trend. Thus, the Task Force previously said that from 1974 to 1980 no trend was indicated. With the correction, the Task Force can now say that there is a detectable gradual downward trend from 1974 to 1980. The error in the transposition of the numbers was discovered by Jack Lyon of the U.S. Forest Service when he converted the figures to logarithmic values. A press release has not yet been issued on the correction, as the final errata sheet was not reviewed by the Interagency Grizzly Bear Committee until their scheduled meeting on November 8, 1983.

9. Most of the data used to support the notion that the grizzly population may be in decline uses the time periods from 1959 to 1980. This statement is often made "the trend from 1959 to 1980 indicates a significent decline." However, this statement is misleading. What is the time period when the sharpest decline began? Is it not true that there was a very significant decline that started in 1968 following the closure of the dumps in Yellowstone Park?

Trend estimates are based on numbers of females with cubs seen in the ecosystem on an annual basis. The determination of whether a trend estimate is statistically different from zero or no trend is made with the use of a statistical test. Two time periods were tested by the Population Review Task Force for statistical significance: the 1959 to 1980 period (the entire time for which data is available for the Yellowstone Ecosystem), and a more recent period, 1974 to 1980 (the time period since the closure of the dumps). No estimates were made on the changing rates of population trends within these two time periods.

10. Much talk is bantied about regarding the role of poachers in the decline of the grizzly population. For the last two years the greatest single source of grizzly decline has been management related removals. Last year 6 out of 14 man-caused grizzly removals were recorded by management. This year all six of the known removals have been management related. Can you provide substantiation to the claim that poaching is the greatest single source of grizzly deaths?

I am not aware that poaching is the greatest single source of grizzly deaths, and I have never seen this claimed by a Federal or State agency. There is concern that poaching kills would be the kills least likely to be detected because of the possibility of organized efforts for monetary gain from the selling of grizzly bear claws, hides, and gall bladders. Grizzly bears are susceptible to illegal killing, through illegal baiting or poisoning. It is likely that the majority of organized poaching would remain undetected, because of the bears' vast range and the remoteness of much of their habitat.

12. Could you provide data to support the notion that you have expounded that another source of the grizzly decline is deteriorating habitat outside of Yellowstone National Park?

The two major problems facing the grizzly bear are human-induced mortality and habitat displacement or destruction as a result of human activity. Increasing resource demands, both inside and outside Yellowstone National Park, have resulted in increasing human activity in grizzly bear habitat. These activities take many forms, such as: oil and gas exploration and

development; backcountry use such as horse users and backpackers; road development and repair, and the resultant increased vehicle traffic; timber sales and timber management operations, and the resultant increasing activity and disturbance in bear habitat, and subdivision of private lands within important grizzly use areas. Increasing use of grizzly habitat promotes more bear/human conflicts and will continue to promote these conflicts, unless they are closely managed. Bear mortalities from control and illegal kills result from uncontrolled bear/human confrontations. Increasing use of bear habitat also displaces bears from important seasonal use areas. In 1983, Yellowstone National Park began a program to identify important seasonal bear use areas and limit these areas to human use during the time when they were important to bears. This is a positive management step which protects bears from human disturbance and allows bears to carry out their normal behavior and habitat use activities without disturbance. As an example of the amount of use in grizzly bear habitat adjacent to Yellowstone National Park, the entire Absaroka/Beartooth Wilderness north of Yellowstone had 393,000 visitor days of use in 1982. The use in this wilderness area in 1982 was the fourth highest of all wilderness areas in the lower 48 States.

13. Is it not a fact that most of the examples of deterioration of habitat outside the Park have existed for many years, even when the population was stable?

Answered under question number 14.

14. Is it not true that sheep grazing allotments and other activities have been going on outside the Park for nearly 50 years?

Habitat impacts from human use have existed in the Yellowstone Ecosystem since prior to the turn of the century. The intensities and types of these uses have varied depending on changing economic conditions and resource demands. The change in sheep grazing allotments is a good example. In recent times, resource demands have increased with the increasing popularity of backcountry recreation and the discovery of oil and gas reserves under the overthrust belt. The precise way that these varying resource demands have affected the grizzly bear over time is unknown. The size and trend of the grizzly bear population in the Yellowstone Ecosystem prior to the research studies initiated by the Craigheads in 1959 is also a matter for conjecture. We do know, however, the increasing resource demands and the parallel increase in human activity in grizzly bear habitat does result in increasing impacts on the bear. These activities must be carefully managed and their effects considered if the grizzly bear population is to recover.

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15. What scientific evidence is being used to rationalize the closing of areas of Yellowstone Park to backpacking or other types of human travel? Is there any scientific evidence to support these closures?

The closure of portions of Yellowstone National Park which have been identified as important seasonal areas for the grizzly is based on the assumption that grizzlies will avoid human use areas. If these human use areas occur in areas of important bear habitat, then the traditional use of important bear habitat is disrupted. Important grizzly use areas were identified using information developed by the Interagency Grizzly Bear Study and the Craighead research efforts. Bart Schleyer, in his 1983 master's thesis entitled "Activity Patterns of Grizzly Bears in the Yellowstone Ecosystem and the Reproductive Behavior, Predation, and the Use of Carrion," noted, "Grizzlies may avoid human activity and may react to disturbance at close range by moving elsewhere. This implies that with ever-increasing numbers of people using 'critical' bear habitat, the numbers of places where bears can retreat will continually shrink and grizzly/human encounters will inevitably increase. Management policies limiting human use of certain areas seem to be of major importance for the grizzly's future." Thus, the importance of identifying these areas of important bear use and limiting human entry, during the times when these habitats are important to grizzly bears, will benefit the bears.

16. Are meetings of the Interagency Grizzly Committees (IGBC) and Subcommittees open to the public?

Yes. The IGBC meetings are open to the public.

17. Do you support outside peer review of the Research Subcommittee activities?

Yes. Outside peer review of Research Subcommittee activities is supported. In fact, nonagency outside experts have been members of three task forces: (1) the Population Review of the Yellowstone Ecosystem Task Force, (2) the Population Review of the Northern Continental Divide Ecosystem Task Force, and (3) the Supplemental Feeding Task Force.

18. The National Science Foundation study of 1963 recommended that National Park Service research be carefully insulated from management in order to avoid conflicts of interest. Has this practice been implemented to your knowledge?

The National Academy of Science-National Research Council report of 1963 (also called the Robbins report) recommendations were followed when resident research biologists were again assigned, beginning in 1967, to Yellowstone National Park and other National Park Service areas. All research biologists were Washington Office staff under the Chief Scientist,

with specific full-time field assignments. Thus, the supervisory biologist and the three research biologists assigned to Yellowstone National Park were not park staff, although they lived and worked in the park full time. They were, of course, available to the Superintendent for onsite technical advice and consultation. Also, funds allotted for the research work were not part of the park budget; these funds were assigned directly via the Office of the Chief Scientist.

19. Who determines what research is done in Yellowstone Park?

Research entailing direct expenditure of National Park Service funds has, of necessity, been oriented toward problem analyzing/solving for management needs. This recognizes the realities of budget and personnel constraints and, as such, is in accordance also with National Academy of Science-National Research Council report of 1963 recommendations regarding "mission-oriented" research. The topical need for such research has been identified from both the scientific community and the Superintendent and his staff. These needs are presently identified in the park's Resource Management Plan. Implementation has been an outcome of priorities and in conjunction with available resources to conduct the research.

Staff researchers normally are assigned to long-term, applied ("mission-oriented") research needs, expected to span a number of years. Additionally, their work also provides a framework and continuity which facilitates identifying and arranging for integration and accomplishment of lesser needs, and complementary studies via contract, graduate students, etc.

When contracts are involved, current Government requirements for bid proposals and selection are applicable. A peer review process is used to evaluate technical content. Selection is based on this, plus application of criteria under question number 20.

Much valuable research has been, and will continue to be, conducted by nonstaff researchers. In Yellowstone National Park, this has included other Government agencies (FWS, USGS, USFS, State personnel, IGBT, Gallatin elk, and Robinson Creek stream survey, for example), a gamut of academic interests, and a few private consultants. These efforts may be supported, in whole or in part, by the National Park Service or other Government funds. Many are supported by academic means entailing no commitment of park support other than research authorization.

The Superintendent's concurrence in the decision is usually necessary in major topics. In Yellowstone National Park since 1974, much of the determination on lesser topics has been delegated to the Supervisory Research Biologist with guidelines and concurrence from the Superintendent. Research has spanned many disciplines and entailed projects from small

herbarium collections to the IGBT. In any given recent year, there have been 125 to 150 separate projects, with the great majority by nonstaff biologists. In the fall of 1983, a Research Administrator succeeded the Supervisory Research Biologist in overseeing the spectrum of research efforts.

20. Does the National Park Service have a national policy specifying objective criteria for research in national parks?

For many years, National Park Service scientific collecting permits and the specifics thereof have been used as criteria. More recently, with greatly expanded research interest both within and external to the National Park Service, Yellowstone National Park has used the collecting permit system as a means for appropriate research authorization. However, some research does not entail collecting of material. Three major guidelines have been clearly determined which are generally used in any natural area:

(a) The research must be compatible with natural area management and objectives. This excludes highly manipulative topics or others with potential negative impacts on the resources. Sometimes the decision is made according to compatibility which, of necessity, must be subjective. The need for the information to be derived must be balanced by an assessment of the possible negative research impacts.

(b) Duplicative research in the same location and at the same time is not authorized (we don't put one researcher on top of another).

(c) Due consideration is given to whether or not the proposed research might be conducted more usefully and appropriately in another National Park Service area, or on nonpark lands. This, too, is sometimes subjective, of necessity. For example, educational requests for collection of most rock samples are referred to sites outside the park. All research is evaluated according to the need for the unique park environment.

21. In the minutes of the Research Subcommittee meeting, you state that it would be preferable to keep Dick Knight's data within your control because the data was "sensitive." What do you mean by sensitive? Isn't withholding data contrary to the basic tenets of scientific inquiry?

I never stated that it would be preferable to keep Dick Knight's data within my control because the data was "sensitive." This question apparently refers to page 8 of the minutes of the Interagency Grizzly Bear Research Subcommittee meeting on August 11, 1983. The minutes read as follows: "Servheen stated that he would not suggest that such an analysis (an analysis of the movement data on Yellowstone bears since

1974) be subject to bid because of the sensitive nature of the information and the fact that it was raw data." The term "sensitive nature" referred to the actual location data from radio-collared bears from 1974 to 1982. Over 3,000 radio-locations of grizzly bear activity sites and denning sites have been gathered since 1974. This information details the exact location of grizzly bear feeding, denning, and breeding areas in the Yellowstone Ecosystem. This information is sensitive because of the need to maintain the solitude of the grizzly, to prevent human/bear conflicts, and to prevent displacement of bears from important habitat by people. There are considerable numbers of people who would attempt to use this information to find bears, to take pictures of them, to enter den sites, and possibly to kill bears for commercial purposes. This is why the specific location data is sensitive in nature. The Interagency Grizzly Bear Study releases an annual report each year detailing research findings and activities of the study team. In no way is any information hidden from the public or from interested scientists. The only information that is not released is the exact location of denning sites, breeding sites, and bear use areas to prevent disruption and disturbance of these sites by people.

If you have any questions or need further information, please contact Dr. Christopher Servheen, U.S. Fish and Wildlife Service, HS 105D, University of Montana, Missoula, Montana 59812, telephone FTS 585-3223 or (406) 329-3223.

Sincerely yours,

Robert H. Shields
Acting Regional Director

W. E. Vehnekamp
267 Lower Southfork Rd.
Cody, WY 82414

SEP 16 1983

September 13, 1983

Senator John H. Chafee
Environment and Public Works Committee
523 Dirksen Office Building
Washington, D. C. 20510

Dear Senator Chafee:

I was very disappointed in the hearing that was held in Cody, Wyoming on August 11, 1983, by you and Senator Simpson.

We, as private citizens, were only allowed five (5) minutes to give testimony on the Grizzly Problems, but all of these so-called experts; who most have become experts in the past five to seven years, including Chris Servheen, and those who work either for the Forest Service or the U.S. Fish and Wildlife, had the floor for as long as they wished to talk.

It is a proven fact, there was no decline in the Grizzly population until 1968; the so-called experts claim there was a decline starting in 1959. The dump closers started in 1968; then the decline started and the problems with Grizzlies started in the Park and outside of the Park as the Grizzlies moved into campgrounds and other areas looking for food.

I saw the program that CBS had on TV, September 2, 1983, in regards to the Grizzly and a part of the August 11 hearing was shown in which Mr. Craig Rupp, Regional Forester, of Denver, again repeated his statement on TV, as to how the citizens would be restricted for certain areas and other permits, such as grazing, outfitters, logging, and maybe even guest ranches, that operate on the Forest, could be revoked.

There are more bears being removed or destroyed by the U.S. Fish & Wildlife and Park Service, than by any other source.

There was a Grizzly Sow and two cubs (female), trapped in West Yellowstone two weeks ago, and it took a petition with 1500 names on it to save the Sows life and one cub was dropped from a chopper and the other cub turned loose, but will probably die.

Just today, there is a piece in the paper about a Grizzly getting into somebody's sheep in the Targee National Forest. District Ranger, Bob Hammond said, and I quote: "There was no problems with Grizzly Bears attacking sheep herds adjacent to Yellowstone Park until the garbage dumps in the Park closed thirteen (13) years ago." Now there is a problem.

Since 1924, sheep have grazed this area. There are approximately fifteen (15) sheep permits in that area. Again, Chris Servheen says, in the same article, that within five (5) years they will be gone.

I can not believe, our people in Washington, will let the Grizzly become extinct, nor do I think that the people around the Park or the visitors to Yellowstone Park should have their activities curtailed, when it can be solved by the re-opening of the dumps, EDIBLE GARBAGE ONLY.

As long as there are humans around there will be garbage and the bears have been utilizing it, and actually, according to Dr. Frank Craighead, there were more of them and evidently they were better off with it, than they are now.

I would suggest to you to read, 'Track of the Grizzly', published in 1979, written by Dr. Frank Craighead, Jr.

I came to the Cody Country in 1946. I have worked and lived within 10 miles of the East boundry of Yellowstone most of the time since 1946. I have followed the Grizzly Bear problem since 1965. The book of Dr. Frank Craighead, is probably, the most factual report I have ever read.

I told Chris Servheen, at a meeting in Bozeman, Montana, this past Spring, that the Park Service and the U.S. Fish and Wildlife, are the ones to be held responsible for the plight of the Grizzly Bear-- not the people outside of the Park.

Oh yes!, the Park Service say they are going to move the buildings and campgrounds at Fishing Bridge down to Bridge Bay Area, because of the Grizzly. I wonder how long it will take the bear to amble another 5 or 10 miles from Fishing Bridge to the Bridge Bay Area.(?) They built Grant Village in one of the best fishing areas for the Bear. Their plan also, to move most of the overnight buildings from Old Faithful to Grant Village. All of these buildings should be left where they are at and remodeled.

I would hope you and Senator Simpson would do something about this WASTE OF MONEY, of moving Fishing Bridge Buildings and campsites, the DESTROYING OF THE GRIZZLY BEAR, and get our OPEN PIT DUMPS RE-OPENED; so we won't have these human/bear confrontations and help "SAVE THE GRIZZLY".

Would appreciate your and Senator Simpson's help in these GRAVE SITUATIONS.

Sincerely,

W. E. Vehnekamp

W. E. Vehnekamp (Bill)

CC: Honorable James Watt
James Arnett
Senator Alan Simpson
Senator Malcolm Wallop
Congressman Dick Cheney

August 17, 1983

Senator Simpson:

I have read the enclosed letter and totally agree with it. Everyone agrees that the Grizz needs protection and where I don't have the answer on just how to do this, I do believe that it is not being handled correctly. I do believe we need to apply a slight amount of pressure on these bears to keep them back in the country where they are protected. If we keep going the way we are and taking creek by creek away from we the people, it won't be too many years till there won't be a campground on the North Fork or Sunlight that will be safe for public use, as is already becoming evident.

Thank you so much for your time and please keep me posted.

Robert J Bessler

Robert J. Bessler
P.O. Box 378
Powell, Wyoming
82435

P.O. Box 1913
Cody, Wyoming 82414
August 25, 1983

Senator Alan Simpson
Cody, Wyoming 82414

Senator Simpson: RE: Senate hearing on the grizzly bear

To introduce myself, I am Barb Egan, a licensed outfitter with a permitted hunting camp in North Crandall , situation I grizzly habitat. I have outfitted for 7 years and have had this camp for 2 years.

Enclosed is a copy of my comments made in response to the scoping statement on grizzly from the Shoshone National Forest.

To these I would add-
We are located in a high density grizzly area, in fact, riding in on a late October hunt last fall, instead of the usual horsetracks on the trail there were solid bear tracks. I counted 2 griz and 2 black that had covered the trail with their prints.

We have seen grizzly in the vicinity of camp and also noted scat and tracks. However, we have not had <u>one</u> bear problem either on summer trips or hunting.

We make every effort to keep a spotless camp, our guests are briefed on what they should not do as a precautionary measure. We have built a platform on which to place our horse cake. Our meat will be packed out as quickly as possible. Camp is never left unattended. I believe that the grizzly and man can co-exist if man will observe the obvious measures needed to discourage the bear from an easy meal.

With the trapping, collaring, and angel dust injection I become a bit more con cerned about the bear's reaction to man. The benefits of such actions should be scrutinized carefully before continuance.

My comments on supplemental feeding are contained in the Forest Service letter. I find it totally illogical to propose a return of the bear to the park in the numbers they quote if the food supply is not adequate. It obviously isn't or their range would not be extending like it is.

A hunting season as proposed by Game and Fish, supervised by the agency, on problem bears possibly could reimplant some fear of man that this bear no longer has. That proposal should be studied carefully.

The possibility of totally closing down situation I seems quite illogical to me also. The elk hunting in these areas supplies a tremendous tonnage of gut piles for high protein fall feeding. The fact that the livelihoods of some approximate 50 or more people would be wiped out is probably not significant unless you happen to be one of the 50.

I want to see the bear remain, he is a beautiful, awesome animal. I feel privilege to have the chance to see him and learn his ways. I urge you to continue the study but not to react to the emotionalism that comes with any threat to an animal and to weigh heavily the comments of those knowledgeable on the bear versus those who are cause fighters.

Thank you,

Barb Egan

Barb Egan
Eagle Creek Outfitting

August 17, 1983

Shoshone National Forest
Attn: Claire Huking
P.OL Box 2140
Cody, Wyoming 82414

RE: PRELIMINARY SCOPING STATEMENT FOR LIMITING VISITOR USE IMPACTS ON THE GRIZZLY BEAR

There are two major steps that I feel must be taken before restrictions should be placed on Forest users.

1. A more accurate count of the grizzly population

The figures that are currently being used for the grizzly population in the Yellowstone Ecosystem have been determined from a count in the Park with minimal input from the outlying areas.
Those using the surrounding Forest areas have commented on the increase in numbers of grizzly they are seeing.
It is easy to make the supposition that because of inadequate food supplies in the Park boundaries the bear has moved out of the Park, greatly increasing its range to find adequate food supplies.
Sightings of grizzly in areas that have not supported grizzly within the past 50 years have been reported. This lends support to the original statement.
The bear is difficult to count because of its nocturnal habits.
Collaring is not the answer as that effect shortens the life span of the bear.
The Wyoming Outfitters Grizzly Committee has developed a bear observation report where we hope to be able to assist in obtaining a population count. The difficulty then is getting an agency to accept our report.

2. Determining the population the Yellowstone Ecosystem can support in a natural free ranging state.

The bear population in the Park became concentrated mainly due to the availability of food in the dumps. When these were shut down the bear began to search for other food sources ranging farther and farther out.
The question now is exactly how many bears can we support without resorting to supplemental feeding. This has not been answered adequately.

While agreeing that some system needs to be developed for the general public the preliminary alternatives suggested are far from the procedures needed to be effective.

#1 Current Management Situation
Volunteer visitor registration limits visitor contact- wrong. There is no control with this system at all.

#2 Information and Education System
I rather doubt that this will effect a persons decision about where they want to go. Minimal success would be achieved.
The program on clean camps, pack in and out, meat storage etc. would be a benefit.
Why do we always try and regulate rather than educate when educating could greatly lessen the need to regulate.

#3 Area Closures
The majority of our wilderness area is grizzly habitat. How many grizzly-human confrontations (excluding hunting) occur in the backcountry? What effect will stopping

bear hunting have on mortality?
We have co-existed with the bear a long time in the back country. Based on that and the ranging of the bear what determines an area to be closed? Just because they are in there...I find that hard to justify.

#4 Self Issue permits
For what purpose? Totally ineffective other than to give you a count <u>if</u> people would do it.

#5 Annual permit
Again what good would it do toward determining or allocating use? More income to your agency perhaps but still no control.

#6 Trip Forest Service Issue Permits
The only system that would give you any control at all. Very cumbersome and expensive to staff as it would require weekend staffing.
Enforcement a definite problem.
Public sentiment against this system would run high.

No, I do not have the ideal system but I feel more thought and suggestions need to be brought forth before determining a workable system.

I would tend to favor the #6 working out some definite plan for controlled usage. Along with that there needs to be more ranger participation in the backcountry to patrol the regulations you are trying to put into effect. If this is not forthcoming then one might as well not even make a regulation because the honest will comply the others will not and will always get away with whatever they want to do

Barb Egan
Outfitter
Eagle Creek Outfitting
Box 1913
Cody, Wyoming 82414

cc:
Bill Vehnekamp
Alan Simpson

GREAT BEAR FOUNDATION
P.O. Box 2699
Missoula, MT 59806
(406) 273-2971

1983 SEP -1 PM 3:13

August 27, 1983

Senator Max Baucus
Washington, D.C. 20510

Dear Max:

We appreciate and welcome this opportunity to offer our comments for the record of hearings of the Senate Subcommittee on Toxic Substances and Environmental Oversight, regarding the grizzly bears of the Greater Yellowstone Ecosystem, including the important acreage outside and adjacent to Yellowstone National Park as well as the Park itself.

It is well known that any population of animals is limited in size by the amount of land available for its use. For example, a herd of 1000 elk could not be expected to survive on a 10 acre plot. While this particular example is an extreme one, it is illustrative of the major point we wish to make: available acreage is an important factor in determining the potential for any animal population's survival.

In the case of the grizzlies of the Greater Yellowstone Ecosystem, the amount of acreage safely and freely accessible to these bears is declining. Development inside and adjacent to the Park is undermining the survival potential of the population. As man continues to move into acreas which previously could be freely and safely used by the bears, the bears are facing a dual threat to their existence. First, some forms of development are modifying food sites, reducing the food available. This amounts to habitat destruction. Second, most forms of development jeopardize the bear directly, create conditions which make the bear's use of the area a matter of considerable risk to the bear. That is, when humans occupy sites used by bears, moving in on the bears, bears are kileed. That pattern has been the major historical factor behind the decline of wild grizzly bears in the western United States, is well known, and in spite of its known effects it is still being allowed today.

What we are saying is the amount of acreage available to these bears determines both their food supply and their security, and that both of these important factors are being reduced by development in and out of Yellowstone Nation Park. Regardless of any other factors responsible for decline of this bear population in the past, losses of these two factors will play a vital and critical role in either losing or saving the remaining bears for the present and the future.

We believe that it is important to determine the amount of land required to safeguard the grizzlies of Yellowstone and, in one for or another, to limit the extent of allowable development in that area. To do that is important and

essential if it is truly the nation's goal to encourage the survival of wild grizzly bears in the Greater Yellowstone Ecosystem. Of course, limitation of development in needed grizzly habitat is legally limited; Under provisions of the Endangered Species Act, only federally managed public land could become subject to such limitation. Since only federally managed public land is subject to such protection, with no existing means to affect damaging development on privately held or state managed grizzly habitat, it certainly appears that protection of federally managed public land must be a high priority step toward prevention of the extinction of Yellowstone's grizzlies.

Yet, federally managed land (national forest land) adjacent to Yellowstone National Park is being proposed for a variety of types of development. Added to past development such as Big Sky and current situations such as that posed by Ski Yellowstone, we see further proposals for geothermal exploration, construction of park employee housing in the parkway south of Yellowstone, oil and gas exploration, and yet other proposed developments. As the Roland Wauer memo to the Interagency Grizzly Bear Study Committee last summer stated, grizzly habitat in the area is being nickel-and-dimed out of existence. We agree with that characterization.

There are known instances when the food supply normally provided by the land has been substituted. Zoos are foremost example of substituting other sources of food for an absent food supply normally provided freely by the land itself. Should the land base of the Greater Yellowstone Ecosystem be developed until it can no longer be expected to feed the bears of the area, a similar strategy could be applied in the Park.

However, we have serious reservations about this option. One of our foremost concerns is that this option may backfire by encouring a belief that wild grizzlies can be maintained in the absence of an adequate land base, thus encouraging a view that damaging types of development adjacent to the Park are a slight matter. But the land base is more than a food base: habitat includes more than areas used for food-finding. Denning areas and other specific sites also need protection if wild grizzlies are to survive. Simply providing food will not mitigate these other important losses from development; The federally managed areas adjacent to the Park remain very important to grizzlies.

A second major concern of ours is that, if exercised in Yellowstone National Park, the option of feeding grizzlies may lead to an encouragement of this last-resort policy elsewhere, possibly including the Bob Marshall Wilderness and associated wildlands. Again, we are concerned that feeding may encourage a neglect of the basic and practical fact that wild animals need protection from excessive occupation of the land by man, that it may be easy for a malinformed and misinformed public to miss the basic point that certain limits must be placed in development if man is to continue to enjoy the presence of wild, free-ranging, independent and sufficient wild animals. Stepwise and incremental progression toward zoo status for existing wildlife has to be halted at <u>some</u> point, and we would prefer that it be halted, in the case of the grizzly bear, in the areas in and adjacent to Yellowstone National Park.

Thank you for this opportunity to present our views. We appreciate your interest in the bears of Yellowstone and all that they mean to the American people.

Sincerely,

Susan Callaghan

for Lance A. Olsen
President

LAO:sjc

GREAT BEAR FOUNDATION
P.O. Box 2699
Missoula, MT 59806
(406) 273-2971

AUG 15 1983

August 10, 1983

Shoshone National Forest
P. O. Box 2140
Cody, Wyoming 82414

ATT: Claire Huking

Dear Claire:

The Great Bear Foundation is a tax exempt organization devoted to protection of all bear species. We have given highest priority to the grizzlies of The Lower 48 States. We are writing in response to the "Preliminary Scoping for Limiting Visitor Use Impacts on the Grizzly Bear" in the Shoshone National Forest.

In general, we believe that the issues and concerns identified are appropriate and salient, although we believe that relaxation/renovation of trails should also be included. Relocation of trails could be an invaluable and light-handed means of limiting visitor impact on grizzlies and other wild species of the area. John Craighead's use of LANDSAT photos for vegetation analysis could be a highly useful means of identifying suitable areas for trail closure and relocation, and for other methods described in the scoping statement.

We are enclosing a copy of our publication, BEAR NEWS, and will place the Shoshone National Forest on our mailing list for future issues. This publication may help with management objective #1--"Provide a means for contact with users to convey information related to grizzly bears, wildland ethics, regulations, etc."--and we are interested in discussion of enhancing that possibility, possibly via a "special issue," in cooperation with the forest or region.

Visitor use would best be evaluated in context with other uses such as grazing or energy exploration, and not alone. We would favor a "cumulative effects" study which did not isolate visitor use from other possible impacts. We would favor this approach because 1) it would be more realistic, and 2) it would

not give the visiting public the impression that the public was being "managed out" of the Forest while private interests were still allowed relatively unrestricted access.

Thank you for this opportunity to comment. If possible, pleæ let us know of any issues and concerns suggested by others for consideration in the upcoming EA. Keep in mind that an EIS may be more appropriate, due to apparently increasing reliance of grizzlies on land outside Yellowstone Park. Any recent evidence of change in grizzly use of the Shoshone Forest should be an integral part of the EA and/or possible EIS.

Sincerely,

Lance A. Olsen
President

CC: Senator Alan Simpson
(for information only)
John Craighead

K-BAR-Z

P.O. BOX 2655
CODY, WYOMING 82414

307-587-4064

MAR 25 1983

Dear Senator Simpson:

I am writing in regards to the closiers of land in the Yellowstone National Park, and some restricted areas outside the Park. This is concerning situation 1 "Grizzly Bear Habitat". On March 15, 1983, I attended a meeting on this subject in Jackson. Present at the meeting was the U.S. Forest Service,(Shoshone Forest) (Teton Forest) U.S. Park Service, Interagency Grizzly Bear Study Team, Wyo,ing Game & Fish, Jackson Outfitters and Cody Country Outfitters. This was not a public hearing.

When the meeting was over, there were a lot of unanswered questions, and I was basicaly disappointed in the whole thing. I am very opposed to any closiers or restrictions on public land without public awareness and hearing on this subject.I am very much for recovery of the grizzly bear, but I dont believe coosing areas is the way for recovery. Bears can't read! They would have to close and restrict the areas for ever. Which is not right on public land,

Mr. Simpson you know they fed the grizzly for 90 years on the dumps in Yellowstone. The bear did very well. When they closed the dumps 13 years ago, it wasnt long before the bear was on the threatened species list. They say there is only 200 grizzlies left in Yellowstone. I don't go along with those figures at all. They have no real proven way of counting the bears. When the dumps were open.they could get a pretty good idea how many they had. At the time the dumps were closed, there was a little over 200 grizzlies killed by the Park Service. I don't believe we should have to pay for the mistakes the Park Service made, this is public land!

I believe there are some different things we can do to save the grizzly bear. Back country feed grounds, for one, away from the camp grounds and people. This would keep the bears basically in a certain area like they want. These supplimentary feed grounds would also help in counting and studing the grizzly bear. There are a lot of benefits to supplimentary feeding of the grizzlies. I'll just mention a few.;

P.O. BOX 2655
CODY, WYOMING 82414

307-587-4064

There could be stricter and stiffer laws for anyone guilty of killing grizzlies. This would make poachers that are selling the bears for $15,000 and only getting a slap on the hands and a small fine, think twice before killing one.

I am a n outfitter, and I believe the facts show that the outfitters have a very good record. In the last 4 years there has been 4 grizzly bear killed related to outfitters out of a total of 56 killed. I am opposed to these closiers and restrictions, yes, because I am going to be affected as a business, but I am opposed to this because it is public land and the public has the right to these lands as far as recreation use and being able to see this beautiful land. I am a native of Wyoming and feel very strongly on this subject.

Mr. Simpson, I wish you would look at this action very seriously and I would very much like a reply on this matter, I would like to know how you stand on this matter. Thank you very much and I hope to hear from you soon.

Sincerly,

John Downing
K-Z Ranch

d d/JD

39-713 O—84——9

METZLER AGENCY

PHONE 307-754-3296
P. O. BOX 598 304 S. EDMONDS
POWELL, WYOMING 82435

FARMS ◆ CITY ◆ SUBURBAN ◆ COMMERCIAL PROPERTIES ◆ RENTALS ◆ MANAGEMENT

August 26, 1983

WESLEY J. METZLER
MEMBER OF LOCAL, STATE AND NATIONAL REAL ESTATE BOARDS

Shoshone National Forest
Attn: Claire Huking
P. O. Box 2140
Cody, Wyoming 82414

Dear Claire:

In reviewing Forest Service Management objectives, I don't think any of the alternatives offered are realistic.

First of all, they are trying to set policy without looking at the cause of the problem.

The Park Service has killed and transported bears out of the Park but still claim they want them - and as far as I can see, they shouldn't be allowed to set foot in the National Forest. Their policies are poor at best. Now they want to bring that thinking to our National Forests. The bears show their track record. Although they have all kinds of excuses, lets look at their management:

1. No Hunting
2. No Public In-put
3. Area closures for use to the public
4. Specialist Studying

The above has resulted in one of the largest bear populations in the Rockies to an endangered species. The general public didn't do that - the Park Service did - by killing and transporting bear.

The Forest Service in this area has, until recently, always asked for public input and made their management decision for the people. Let's not let our Forest go by way of the Park Service.

Someone needs to talk to the Forest & Park personnel in private, where they won't be afraid of losing jobs or hurting careers and I think you would get to the bottom of the problem.

Lets leave the bear along - quit studying them - and they will do just fine. We didn't have problems with them when there were lots of them around!

Sincerely,

Wesley J. Metzler

cc: Senator ~~Allan~~ Simpson

University of Montana
Missoula, Montana 59812

May 23, 1983

Mr. Wayne Brewster
Endangered Species
U.S. Fish and Wildlife Service
Federal Building, Room 3035
316 North 26th St.
Billings, MT 59101

Dr. Chris Servheen
Endangered Species
U.S. Fish and Wildlife Service
Montana Cooperative Wildlife
Res. Unit
University of Montana
Missoula, MT 59812

Dear Wayne and Chris:

Enclosed is a summary of my work during the 1982 field season. I thought that you may want a copy for your files. Also enclosed is a copy of Marty Smith's proposal to continue the work I started. He was my field assistant last year, and wants to continue the work as his senior thesis (and perhaps graduate work) here at the University. He will run the tests under C. Jonkel's and my supervision. I am still on schedule, and plan to be completely finished with my thesis in September, 1983.

Although Smith does not have funding to conduct the field tests he has proposed as of yet, the lab tests stand ready to go. The lab modifications and most of the materials necessary for testing were bought and paid for in the past. Therefore, should any one-way grizzly bears become available this summer, we ask that you make them available to us for testing. It would be unfortunate to destroy a bear without testing it first, when we have this study in progress. Any help you can give us in this area would be appreciated. Funds for the project would also be most welcome.

As you can see by the research proposal, we are working with several inventors this year, among them Frank Child. I think the materials he has come up with have potential for use as deterrents against bears. His preliminary test results on grizzlies in Wyoming looked good, it was a shame his work had to be shut down. This summer, Smith plans on testing Child's stimuli in the lab and at the garbage dumps in Canada.

Equal Opportunity in Education and Employment

In speaking with Frank, he mentioned he had, by chance, ridden on a plane with you, Wayne, and had talked to you about his work. You mentioned that your department is interested in deterrent/repellent research, and has funds for this line of work - that he should get a proposal in to you. Because Child's work in Wyoming has been discontinued for now, Smith's project will be his outlet for testing. Please consider Smith's proposal as an expansion of the research I conducted, and as a project with potential for funding and completing at a minimum of expense, because of this continuity.

Chris, I hear by the way of Doug Seus that you are interested in having an electric fence design tested as a deterrent for bears. I have accumulated several unpublished papers which review what has been done with electric fences for bears. If you'd like copies, let me know. Also, Marty will be testing a specific electric fence this summer. We are interested in coordinating our work with yours so that we do not waste time or money on duplicated efforts.

In line with the above, I feel that any effort made at developing deterrents or repellents for bears should begin with a basic understanding of what has already been tried for bears, and where the science as a whole now stands. Recently I completed a bibliography for Glacier National Park in which I have tried to do just that (contact Cliff Martinka if you'd like a copy). If the Department of the Interior is interested in this line of research, efforts toward a mutual goal would be more fruitful if the work we do is coordinated, or better yet, invested in one unified research effort. As far as the grizzly is concerned, we don't have the money or time to waste. The results of work on repellents and deterrents for bears should increase the possibility for the species to coexist with Man, and may be essential to its continued preservation in the lower 48 states.

Glacier National Park took a recent step toward this goal by contracting for the bibliography to be compiled. The Montana Department of Fish, Wildlife and Parks has supported one year of research on repellents and deterrents for bears, and the B.C. Fish and Wildlife Branch has committed to this line of work by allowing us to trap, tag, and test free-ranging bears in their dumps when we could not get clearance to do that in the U.S. Many other agencies, including the U.S. Forest Service, the Montana Cooperative Wildlife Research Unit, the BIA, and the Confederated Salish and Kootenai tribes, have also cooperated, providing us with the support we needed to conduct tests in 1982. Having dispensed with much of the necessary ground work and baseline testing in 1982, we now have a framework on which other studies can build.

If your office is interested in this research, I am very interested in meeting with you to discuss the matter so that we can design a well-directed meaningful, research plan. Furthermore, if you have funds for such work, please consider Smith's proposal, which you now have in hand.

Thank you for your time. If you wish to contact me I can be reached at (406)243-6523. Chuck Jonkel's number is (406)243-2253, and Marty Smith's office number is (406)243-6728.

Respectfully,

Carrie L. Hunt

Carrie L. Hunt, Graduate Student
U of M Wildlife Biology Program

Enc.
cc: Jonkel
Smith
O'Gara
FWP
BC Wildlife Branch

15038 Kelly Canyon
Bozeman, MT 59715
August 22, 1983

Honorable Allan Simpson
United States Senate
Environment and Public Works Committee
709 Hart Building
Washington, DC 20510

Dear Senator Simpson:

I would like to take this opportunity to make a few comments relative to the Greater Yellowstone Bear Hearing which you and Senator Chaffee chaired recently in Cody, Wyoming.

To establish my credentials, I would first give you a brief personal background. I was born in Kansas City, Missouri in 1925, and while still a babe-in-arms was moved to the Cody, Wyoming area where my parents were in residence at Pahaska Tepee, remaining there until early 1928 when we moved to Okmulgee, Oklahoma. In the summer of 1928 my father started a boys' camp - horseback outfit in Yellowstone National Park, headquartering out of Cody for a number of years and then moving to Gardiner, Montana. The name for this group was Camp Trails. My father continued this opportunity for boys through 1957, passing away in 1958 just prior to his departure from Oklahoma for Yellowstone with a group of boys for the summer campout.

I started going with my father in 1930 at the age of five and continued to do so until 1943 when I was afforded the opportunity to take an extended trip with the U.S. Army Air Force until 1945. I again assisted my father the summer of 1946 in Yellowstone.

In the summer of 1947 I secured seasonal employment with the National Park Service in Yellowstone as a Fire Control Aid assigned to the Thorofare area of the park (southeast corner of Yellowstone) and continued for the following five summers in Yellowstone as a Seasonal Park Ranger assigned to various locations in the park during the summer (and occasional fall) months. In the off-season I attended what was then called Colorado A&M College in Fort Collins, Colorado.

In September 1952 I received a permanent appointment as a Park Ranger in Shenandoah National Park and transferred back to Yellowstone the following summer in August 1953.

I remained in Yellowstone fulltime from that date until my retirement in August 1980, covering a period of approximately 34 very good years with the National Park Service in Yellowstone. When I retired I was still a Park

Ranger assigned to and under the supervision of the Chief Park Ranger as the Forestry, Fire and Bear Management Specialist.

During most of those years I was assigned to field stations out in the park, and 14 of those years assigned to the Lake area. I was the District Ranger assigned to the South District (which included during this period the Canyon, Lake, Grant Village, and Snake River sub-districts) from 1967 through 1976.

As you can see, my areas of assignment over the years gave me considerable opportunity for exposure to the bear activities which were evident during my tenure in Yellowstone.

My brief comments concerning the Yellowstone bear controversy are as follows:

I received the impression from several comments made at the hearing that a great number of people are interested in seeing the dumps reopened in Yellowstone. I wonder if some of these people are aware that the dumps previously there were used only from mid-June to late August/early September of each year (due to availability of material from park and concession operations), and during those years prior to the dump closures many of the bears which frequented the dumps were to be found in the various campgrounds at Canyon, Grant Village, Lake and Fishing Bridge, and to a lesser degree at the other campgrounds throughout the park prior to and after the dumps were in operation.

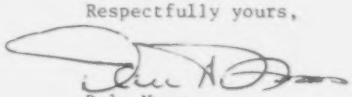
My second, and most important, observation concerns the historic and questionable population of grizzly bear in Yellowstone.

When white man and his first operations came to Yellowstone, transportation and the number of park visitors were quite small. Accommodations were rather small and not too far apart, and were quite basic. Dumps for these operations were functional and close at hand. Naturally, as history books will point out, bears (both black and grizzly) started using these. Over the intervening years as operations, concessions, and transportation expanded, this practice continued until such a time that it was obvious a hazard existed. Along about this time, the first bear feeding ground was opened in the Old Faithful area (I still remember the spot) and was later moved to the Canyon area. This operation was later closed in 1941, but the old, larger established dumps were still maintained such as Rabbit Creek near Old Faithful, Trout Creek between Canyon and Lake in Hayden Valley, the West Yellowstone dump both in and out of the park, and various smaller dumps located throughout the park.

I have had the impression for some years that a great many people, both the layman and scientifically oriented, assume the grizzly population to be that which was declared to be true during the 1950's and '60's, with the sow-to-cub ratio always at that level, etc.

My question and observation is as follows: Was this a true, natural population, or was it in fact an unnatural population which had continued and increased over the many years due to conditions which were earlier mentioned; and the population which is now becoming evident in the greater Yellowstone area is a more natural, normal population - a population which the greater Yellowstone ecosystem can naturally support.

Respectfully yours,



Dale Nuss

SEP 8 1983

1308 Red Butte Ave.
Cody, Wyoming 82414
August 31, 1983

Dear Senator Simpson:

I would like to express my concern over the happenings in our Yellowstone National Park. The talk of closing the campground at Fishing Bridge is only the first step. To protect the delicate balance between man and nature soon chartered bus trips will be our "enjoyment" of Yellowstone National Park. Collars, tranquilizers, and cages have replaced the bear's natural fear of man with anger and hatred. Rangers put away your cages and broken cables! Let the bears have the dumps. Who are they hurting? Hungry animals are desperate animals. If we want to enjoy our National Park in the future, the time to act is now, before it is too late. This is the oldest National Park known to the world. Let us not lose it.

Thank you,

Romeee Reinker

August 9, 1983

AUG 16 83

Shoshone National Forest
P.O. Box 2140
Cody, Wyoming 82414

Attention: Claire Huking

Dear Ms. Huking;

I understand you are receiving comments concerning the possibility of the Forest Service limiting visitor use impacts on the grizzly bear within the Clarks Fork, Greybull, Wapiti and Wind River Ranger Districts of the Shoshone National Forest in Park, Hot Springs and Fremont Counties, Wyoming. I believe these comments are then to be used in your Environmental Assessment, presently being written.

To begin with, let me say that I appreciate the public information efforts you have gone through, via the newspaper articles and the preliminary scoping statement you made available. In our democracy, such a thing should be readily expected, but it is still encouraging to know you are actually and honestly following Federal Law. Now for my opinion concerning the issue at hand:

Proper management and protection of our wildlife is important but I believe it can be done without infringing on my rights as an individual to use Federal Lands as our forefathers intended, as these lands were set aside for use by all the people of this country. Your first management objective which is to "Provide a means for contact with users to convey information related to grizzly bears, wildland ethics, regulations, etc." is the one I believe to have the most merit.

Proper education of, and communication with the public should accomplish the intended purpose without taking the other radical measures; i.e. Nos. 2, 3, and 4 in your management objective possibilities.

Every year I spend a considerable amount of time in the area you classify grizzly bear management situations 1 and 2. While in these areas, I conform strictly to the rules and regulations established by the Forest Service and I also do my best to avoid any bear encounters. These actions are based on past education and experience and your education of newcomers to the area should give them the same insight and common sense to use the area properly.

In your scoping statement's issues and concerns section, I have found three I would like to address: Number 2 asks how much the program will cost. As a taxpayer, I am interested in your conserving my money, I am not interested in your spending my money to take away my rights.

Number 4 asks what kind of restrictions will be made on the Forest users and how much of an inconvenience will they be to the public. In my judgement, any restrictions on Forest users will be a great and unnecessary inconvenience to the public.

Number 5 asks: "is the program going to help the grizzly bear situation?". I believe that the implementation of aforementioned management objective No. 1 concerning education of the public will indeed help and that should easily suffice.

You have outlined 7 preliminary alternatives to be considered in the Environmental Assessment. From what I have brought up previously, it should be no surprise that the obvious choices are No. 1 which states: "Current Management Situation. This alternative involves continuing the current management situation. A voluntary visitor registration system exists at the major wilderness trailheads, visitor contact is limited and seasonal vehicle restrictions are established as needed," and No. 2 which states: "Information and Education Program. Through this alternative, recreational use would be voluntarily redistributed away from sensitive grizzly habitat areas. Contact between the public and the Forest Service would be increased through educational and interpretive programs."

The other alternatives that would involve area closures, self issue permits, annual Forest Service issue permits or trip Forest Service issue permits are totally unacceptable to me. I believe it is time the U.S. Forest Service stopped judging the great majority of us that use the Forest sensibly and wisely, as our fathers and forefathers taught us; in the same light as the unfortunate, misguided few that haven't had proper education on the safe use of the mountain lands.

I believe the general public would sincerely be willing to cooperate with the sensible approaches outlined herein, but also believe we should not, and will not go along with being policed and restricted in and from an area that humans have as much right to be in as the grizzly bear.

Oftentimes, Government agencies tend to forget that we humans are mammals too — are perfectly "natural", and are entitled to be considered properly.

A few other points I feel you should consider are as follows:

1.) The Wyoming Game & Fish Commission has recently discontinued allowing hunters to place baits out to attract bears. This procedure alone greatly reduces the chance of an inexperienced hunter mistakenly shooting a grizzly, thinking it is a black bear, and should mitigate most of the problems associated with humans harming bears.

Without a rifle, I fail to believe any human is a threat to a grizzly and those who feel the bears are helpless have not witnessed the results of their great power and strength.

2.) The grizzly bear is hunted in Montana, Canada, and Alaska — legally, with licenses issued. I feel this area we use so much is being severely discriminated against, when you consider the state of the species on a world-wide basis.

They could hardly become extinct by our use of the National Forest in the Pioneer spirit of our ancestors who always looked to the mountains for solace, food, and countless other needed human activities.

3.) I believe anything as far-reaching as your proposals should be brought to a vote of the public, in a duly held "election" and believe you would be overwhelmed with the number of supporters of my ideas.

I urge you to consider the points brought out herein during your deliberations, and would definitely like to receive a copy of the Environmental Assessment when completed. Thank you for your indulgence, I hope proper conscience guides you to the right decision.

Sincerely yours,

Richard A. Stearns

cc: Senator Simpson
Senator Wallop
Representative Cheney

Address: P.O. Box 1184
Powell, Wy 82435

August 23, 1983

Senator Alan Simpson
Senate Env. and Public Works Committee
U.S. Senate
Washington, D.C. 20010

Dear Senator Simpson,

After having attended the Senate hearing on grizzly bears in the Yellowstone ecosystem, I felt more than ever a decisive policy is necessary as soon as possible in order to encourage as bright a future as we can for the grizzly. I sympathize with your position as decision maker in such a difficult situation. It seems as though you're damned if you do and damned if you don't when it comes to deciding what to do next.

I personally feel that any decision made now involves risks because of the precarious status of the grizzly in Yellowstone; however, I have a certain gut feeling about what should be done with the grizzly so I will make my suggestions and you can take them for what they're worth along with everyone else's.

I would start off by severely increasing the enforcement on bear hunting laws including higher fines on bear violations. This would mean sveral thousands of dollars for killing a grizzly accidentally or on purpose and perhaps a hundred dollars for camps with open pit dumps or otherwise messy areas that would attract bears into more popular sites. Outfitters as well as the general public should be educated as to how to keep a tidy camp and therefore discourage bears in the area from coming in looking for handouts. My husband and I outfit in the Wind River Mountains and while there are plenty of black bears there, we have never had any trouble with them although other outfitters have had their camps broken into. I attribute this partially to luck and partially to keeping a clean camp where all garbage is burned, cans are burned and packed out at the earliest convenience and game meat is not left hanging in camp very long. It should be the obligation of the U.S.F.S. to enforce a clean camp law and if necessary suspend the base camp permit when the law is not followed.

As controversial as it seems right now, I would have to agree with John Harlow that I would think it advantageous in the long run to open a very limited grizzly bear season, perhaps two per year. At the same time I think the black bear season around the Yellowstone ecosystem should be more limited as there are too many grizzly bears killed supposedly mistaken for black bears. Having worked in the Bob Marshall Wilderness for an outfitter in an area where quite a few grizzly bears were encountered, I cannot emphasize enough the effect of hunting on keeping bears wary of people. Every time we ran into a grizzly on the trail in the Bob Marshall, the bear would stop and catch wind of us and be gone into the brush at a run.

I think it would be to the grizzly bear's advantage to start restoring the Craighead grizzly bear study team. As complicated and costly as it may seem, supplemental feeding may be the next move in grizzly bear management if the population is going to be augmented.

By all means I don't see anything wrong with closing off parts of Yellowstone Park to people and allow the bears to have people-free habitat. When traveling in the Yellowstone back country this summer part of the park was closed off to people but there were plenty of other areas to visit. In my mind, parks are for animals as well as people. After all, wouldn't Yellowstone lose a lot of what we all go there for if the animals weren't there?

I hope you will weigh everything you have heard in the hearings and then decide in favor of the grizzly.

Sincerely,

Meredith Taylor

Meredith Taylor
Box 363
Pinedale, Wy. 82941

August 22, 1983

Senator Alan Simpson
SH709 Heart Bldg.
Washington, D.C. 20510

Dear Alan,

I'm sorry I missed you a couple of weeks ago when you were in town for the hearing on the "bear problem." I had hoped to attend, but had to be out of town.

I want to voice my opinion on the situation which I have always preferred to call a "people problem."

I whole-heartedly support the efforts of those individuals who hope to achieve a higher and more stable population of grizzly bears in the Yellowstone region. However, I think this can be accomplished with few restrictions on human use of those areas presently shared by bear and man.

The Park, wilderness areas and forests provide an excellent environment for the grizzly to inhabit. They also provide a great deal of recreational opportunity for those individuals who enjoy the amenities of this relatively untamed country. Those who propose restricted use of these areas by man insinuate that the area is not sufficiently large to accommodate the grizzly and man at the same time. Not without some confrontations perhaps, but it is certainly large enough.

People utilize an extremely small percentage of these lands - a fact which surveys support. Man-bear encounters, when they occur, result from both using a small part of these vast areas at the same time. The frequency of such encounters is relatively small - intolerable to some, but still small. Well informed people are seldom surprised by the possibility of encountering a grizzly in this region. They rather anticipate such a chance meeting and take intelligent precautions to avoid such an occurrence.

For the present time, I prefer the unrestricted use of our wilderness, forests and Park, and the continued education of the would-be back country traveler. I acknowledge that bear and man will occasionally meet and that sometimes this may result in tragedy. To eliminate that possibility is to eliminate the bear or human use of the area, and neither is either practical or desired.

Thanks for listening.

Sincerely,

Mark L. Stockton

MLS/lld

P.O. Box 697 • 1220 Sunshine Avenue Suite D • Cody, Wyoming 82414 • Phone (307) 527-6211

Department of Biological Sciences

Wellesley College

Wellesley, Massachusetts 02181
(617) 235-0320

August 23, 1983

Environment and Public Works Committee
Dirksen Office Building
Washington, D.C. 20510

attention: Senator Simpson

To Whom It May Concern:

We believe it important that the grizzly bear remain in the Yellowstone ecosystem and that land management policies be designed to accomplish this end. After attending the Aug. 11, 1983, hearing in Cody, Wy. on the plight of the grizzly, we have the following comments. We would like these comments to be included in the official record.

1. Reliable study of the biology of the grizzly must be the basis by which all management decisions are made. Continuing research and monitoring are absolutely necessary.

2. In the Yellowstone ecosystem, conflicts between humans and grizzlies should generally be resolved in favor of the bear.

3. All future development in this ecosystem should be restricted to areas outside rather than inside Yellowstone National Park. No further degradation of important grizzly habitat should occur.

4. Limited hunting of the grizzly in this area would serve no purpose other than further reducing the limited number of grizzlies. Wariness among hunted game animals such as elk and deer develops because those animals live in groups and are more social. That is not the case with the grizzly. It is naive to expect the grizzly to respond to hunting just as other large mammals do.

5. At the hearing, the decline of the grizzly in Yellowstone was attributed to a shortage of food after closing the dumps. There is no firm evidence that this is so. It would be folly to begin a program of supplemental feeding or reopening of garbage dumps without knowing whether or not there would be any benefit. Study of the bear must continue.

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Wellesley, Massachusetts 02181
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6. In addition to the above comment on feeding, reopening the dumps (or opening new garbage dumps in isolated areas) is a poor idea, as testified by the Superintendent of Yellowstone Park. This action would further accustom the bears to garbage and lead them back into campgrounds. The number of bear/human incidents would then increase.

7. Means to ensure vigorous prosecution of poaching must be available.

8. Humans living in the ecosystem must clean up bear-attracting garbage dumps. This comment most directly applies to those areas outside of Park jurisdiction.

We respectfully submit these comments to the Environment and Public Works Committee, and trust that they will be thoughtfully considered.

Sincerely,

Ernest H. Williams, Ph.D.

Sharon F. Williams